COASTAL ZONE MANAGEMENT AND RESOURCE PROTECTION

HEARING

BEFORE THE

SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT

AND THE

SUBCOMMITTEE ON OCEANOGRAPHY

OF THE

COMMITTEE ON MERCHANT MARINE AND FISHERIES HOUSE OF REPRESENTATIVES

ONE HUNDREDTH CONGRESS

SECOND SESSION

ON

THE PROBLEM OF COASTAL POLLUTION, EXAMINE THE DEVELOPMENT AND LAND USE IN THE COASTAL ZONE AND EFFECTIVE, PREDICTABLE PLANS THAT SHOULD BE PERMITTED

SEPTEMBER 28, 1988

Serial No. 100-93

Printed for the use of the
Committee on Merchant Marine and Fisheries

U.S. GOVERNMENT PRINTING OFFICE

90-797 WASHINGTON : 1988

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

H561-34

COMMITTEE ON MERCHANT MARINE AND FISHERIES

WALTER B. JONES, North Carolina, *Chairman*

GLENN M. ANDERSON, California
GERRY E. STUDDS, Massachusetts
CARROLL HUBBARD, JR., Kentucky
DON BONKER, Washington
WILLIAM J. HUGHES, New Jersey
MIKE LOWRY, Washington
EARL HUTTO, Florida
W.J. (BILLY) TAUZIN, Louisiana
THOMAS M. FOGLIETTA, Pennsylvania
DENNIS M. HERTEL, Michigan
ROY DYSON, Maryland
WILLIAM O. LIPINSKI, Illinois
ROBERT A. BORSKI, Pennsylvania
THOMAS R. CARPER, Delaware
DOUGLAS H. BOSCO, California
ROBIN TALLON, South Carolina
SOLOMON P. ORTIZ, Texas
CHARLES E. BENNETT, Florida
THOMAS J. MANTON, New York
OWEN P. PICKETT, Virginia
JOSEPH E. BRENNAN, Maine
GEORGE J. HOCHBRUECKNER, New York
BOB CLEMENT, Tennessee

ROBERT W. DAVIS, Michigan
DON YOUNG, Alaska
NORMAN F. LENT, New York
NORMAN D. SHUMWAY, California
JACK FIELDS, Texas
CLAUDINE SCHNEIDER, Rhode Island
HERBERT H. BATEMAN, Virginia
JIM SAXTON, New Jersey
JOHN R. MILLER, Washington
HELEN DELICH BENTLEY, Maryland
HOWARD COBLE, North Carolina
MAC SWEENEY, Texas
CURT WELDON, Pennsylvania
PATRICIA SAIKI, Hawaii
WALLY HERGER, California
JIM BUNNING, Kentucky
ERNEST L. KONNYU, California

EDMUND B. WELCH, *Chief Counsel*
BARBARA L. CAVAS, *Chief Clerk*
GEORGE D. PENCE, *Minority Staff Director*
DUNCAN C. SMITH III, *Minority Chief Counsel*

SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT

GERRY E. STUDDS, Massachusetts, *Chairman*

DON BONKER, Washington
ROY DYSON, Maryland
THOMAS R. CARPER, Delaware
DOUGLAS H. BOSCO, California
SOLOMON P. ORTIZ, Texas
THOMAS J. MANTON, New York
GLENN M. ANDERSON, California
WILLIAM J. HUGHES, New Jersey
MIKE LOWRY, Washington
EARL HUTTO, Florida
W.J. (BILLY) TAUZIN, Louisiana
DENNIS M. HERTEL, Michigan
BOB CLEMENT, Tennessee
WALTER B. JONES, North Carolina
(Ex Officio)

DON YOUNG, Alaska
CLAUDINE SCHNEIDER, Rhode Island
HERBERT H. BATEMAN, Virginia
JIM SAXTON, New Jersey
JOHN R. MILLER, Washington
MAC SWEENEY, Texas
CURT WELDON, Pennsylvania
PATRICIA SAIKI, Hawaii
WALLY HERGER, California
JIM BUNNING, Kentucky
ERNEST L. KONNYU, California

JEFFREY PIKE, *Senior Professional Staff*
WILL STELLE, *Counsel*
GINA DEFERRARI, *Professional Staff*
ROD MOORE, *Minority Professional Staff*

SUBCOMMITTEE ON OCEANOGRAPHY

MIKE LOWRY, Washington, *Chairman*

THOMAS M. FOGLIETTA, Pennsylvania
ROBERT A. BORSKI, Pennsylvania
ROBIN TALLON, South Carolina
GERRY E. STUDDS, Massachusetts
WILLIAM J. HUGHES, New Jersey
DON BONKER, Washington
WALTER B. JONES, North Carolina
(Ex Officio)

NORMAN D. SHUMWAY, California
CLAUDINE SCHNEIDER, Rhode Island
JIM SAXTON, New Jersey
PATRICIA SAIKI, Hawaii
WALLY HERGER, California
ROBERT W. DAVIS, Michigan
(Ex Officio)

CURTIS L. MARSHALL, *Staff*
STEPHEN FINLEY, *Professional Staff*
JAN CHISOLM, *Clerk*
LARRY FLICK, *Minority Professional Staff*

CONTENTS

	Page
Hearing held September 28, 1988	1
Statement of:	
Davis, Hon. Robert W., a U.S. Representative from Michigan	36
Hanmer, Rebecca, Acting Assistant Administrator for Water, EPA	7
Prepared statement	58
Houck, Oliver A., professor of law, Tulane University	11
Prepared statement	74
Liss, Judge Solomon, Chesapeake Bay Critical Area Commission (prepared statement)	97
Maginnis, Tom, Assistant Administrator for Ocean Services and Coastal Zone Management, NOAA	4
Prepared statement	39
Marsh, Langdon, executive deputy commissioner, New York State Department of Environmental Conservation	18
Prepared statement	91
Ross, James F., director, Oregon Department of Land Conservation and Development	15
Prepared statement	81
Saxton, Hon. Jim, a U.S. Representative from New Jersey	2
Studds, Hon. Gerry E., chairman, Subcommittee on Fisheries and Wildlife Conservation and the Environment	1
Taylor, Dr. Sarah, executive director, Chesapeake Bay Critical Area Commission, Maryland Department of Natural Resources	19
Additional material supplied:	
National Oceanic and Atmospheric Administration: Map of America's Troubled Coasts	105

COASTAL ZONE MANAGEMENT AND RESOURCE PROTECTION

WEDNESDAY, SEPTEMBER 28, 1988

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT, AND SUBCOMMITTEE ON OCEANOGRAPHY, COMMITTEE ON MERCHANT MARINE AND FISHERIES,

Washington, DC.

The subcommittees met, pursuant to notice, at 9:10 a.m., in room 1334, Longworth House Office Building, Hon. Gerry E. Studds (chairman of the Subcommittee on Fisheries and Wildlife Conservation and the Environment) presiding.

Present: Representatives Studds, Lowry, Hughes, Carper, Saxton, Miller, and Weldon.

Staff present: Tom Laverty, William Stelle, Joyce Sacco, Lisa Murray, Sue Waldron, Tom Melius, Lisa Pittman, Kelly Faulkner, and Larry Flick.

STATEMENT OF HON. GERRY E. STUDDS, CHAIRMAN, SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT

Mr. STUDDS. This morning, the Fish and Wildlife and Oceanography Subcommittees convene for their eighth and final oversight hearing of this Congress on the problem of coastal pollution. Today's focus departs from the water quality orientation of the earlier hearings to examine one of the most fundamental issues underlying the problem of coastal degradation—development and land use in the coastal zone.

Recognizing the practical difficulties of improving coastal protections simply by imposing stricter rules on who can discharge what and where, we hope today to look at the prospects for promoting effective, predictable plans for coastal areas that will set out the types of development and land use that should be permitted—and restricted—in coastal areas in the first instance.

Given that focus, we must also grapple with the very delicate task of delineating the proper function of the Federal Government in promoting good land-use planning. That sentence would have sent members scurrying under tables as recently as ten years ago.

In examining that Federal role, our lens must inevitably turn upon the primary Federal program designed to encourage proper land-use management in the coastal zone, the Federal Coastal Zone Management Act. Enacted in 1972 as a collaborative Federal-state effort, the CZM program has now a sixteen year record from which

we might draw certain lessons. Has it worked, or is the continuing decline in coastal areas evidence of its inadequacy? Should it embody more substantive environmental goals? Should the ties between CZM programs and water quality objectives be strengthened, and if so, how? Should the Federal role in State programs be strengthened through mandatory performance standards, or should the solution be limited to more money and stronger incentives?

The task of evaluating the performance and capabilities of the CZM program is made much more difficult by the extraordinary record of abuse and neglect that has characterized the administration of the program for the last seven years, handicapping the program and seriously prejudicing its prospects. Nonetheless, in today's examination I would urge us all to leave behind this dismal recent performance and to look at the program for what it could be, not what it has been.

There are also larger issues regarding the federal presence in the coastal zone that we will only begin to touch on today, relating to those programs that provide assistance for construction and development in coastal areas. Are those assistance programs properly designed to encourage sensible coastal development while meeting their other principal objectives, or should they be modified to meet these multiple objectives?

Before proceeding, I would also like to note to the Subcommittee members the progress on the Subcommittee's oversight report on coastal pollution. Earlier this week the Subcommittee staff distributed to each member, a draft report that is intended to summarize what we have learned and to lay out a set of recommendations that might be taken up by Congress and the next Administration on this subject. The report is long and somewhat detailed, and I would welcome any comments and recommendations that the members would care to offer. Because time is short, I would ask that staff provide to the Subcommittee its comments and suggestions by the end of this week, or let us know if more time is necessary. After revisions, I would hope to file it—hope is the operative word, as usual—on behalf of the Subcommittees just prior to adjournment.

Other than that, I can only recommend that Members and staff read Calvin and Hobbes this morning.

Does the gentleman from New Jersey have a statement?

Mr. SAXTON. Yes, sir.

STATEMENT OF HON. JIM SAXTON, A U.S. REPRESENTATIVE FROM NEW JERSEY

Mr. SAXTON. First, Mr. Chairman, let me express my gratitude to you and Chairman Lowry for convening today's hearing and for your leadership in focussing these subcommittees on the crucial issues of coastal pollution. Not just today, but throughout this entire session and previous to that as well.

To prevent the degradation of our oceans, we must review the mechanisms by which we manage our resources, both at sea and on land. This session-long series of hearings that the Chairmen have had the foresight to organize, will allow this and future Congresses to move forward with significant legislation on the basis of a very thorough understanding.

Among the many issues in coastal pollution that we have learned about, I believe there is a short list that is the mandate of this Congress. On that list are the strict, nationwide tracking of medical waste; bringing an end to ocean dumping of sewage and industrial waste; reducing acid rain as a source of coastal pollution; and the promotion of waste reduction and recycling, particularly of plastics. Many of these subjects we have dealt with, or are in the process of dealing with, and I thank the Chairman for his efforts with regard to those subjects and the progress that we have made relative to them. These are crucial, critical not only to the health and welfare of our oceans, but also to the local economies which depend upon a healthy ocean.

The Coastal Zone Management Act, at the center of today's hearing, was passed in 1972 with very valid and lofty goals. Sixteen years later we continue to see unprecedented levels of habitat loss and coastal pollution. Yet I know that Coastal Zone Management agencies in New Jersey and across the Nation are staffed with fine and loyal people. Explaining this gap and bringing to the surface what we in Congress can do to encourage and help our coastal managers is the objective of today's hearing.

I have two general areas of concern that I hope today's witnesses might address. They are basic to the mechanism of the Coastal Zone Management Act. First, do we need to strengthen and broaden the link between Federal assistance and water quality achievements? And second, is there—and I believe there is—a need to clarify and restore the original intent of the Coastal Zone Management Act with respect to States' rights to review federally permitted activities, such as sludge dumping, dredge spoil dumping, and wood burning?

Mr. Chairman, I look forward to today's hearing and the witnesses that will appear today, and I thank each of them in advance for taking time to help. And, again, I thank you, Mr. Chairman, and Chairman Lowry as well, for convening today's hearings.

And finally, let me ask unanimous consent that the opening statement of Mr. Davis be included in the record at this point.

Mr. STUDDS. Without objection.

[The opening statement of Mr. Davis can be found at end of hearing.]

Mr. STUDDS. I commend the gentleman, both for his continuing attention and concern to this problem, and for his ability to arrive at the bizarre hour established for this hearing by the staff.

The gentleman from Washington?

Mr. MILLER. No, Mr. Chairman.

Mr. STUDDS. Is the gentleman able to speak at this hour?

Mr. MILLER. Barely.

Mr. STUDDS. Let the record reflect that Republicans get up earlier than Democrats, and let us all dwell on the possible frightening significance of that. [Laughter.]

Mr. STUDDS. We'll turn to our witnesses. We have a panel of six. We're going to proceed in the following way. I trust the staff has talked to you about this. We'll recognize you serially as a panel, and hold our questions until you've each completed your oral statement. We have asked you, I trust, to try your darndest to confine your oral remarks to no more than five minutes each. I know

that's not easy on a subject you care about and that is complex inherently.

Your statements will appear in full in the record immediately following your oral statements, but we would ask you to try—I should alert you, the House, I think, is going into session at 10:00, which means that all bells are likely to break loose, starting at 10:00 o'clock. So our most productive potential time is the next 45 minutes, which is another reason to try to allow us to get our questions in before we're summoned away for other things.

We'll start with Mr. Tom Maginnis, Assistant Administrator for Ocean Services and Coastal Zone Management. Do you get that all on your stationery? Of NOAA, Mr. Maginnis.

I'm glad you're not the acting deputy of that.

Mr. MAGINNIS. Me too.

STATEMENT OF TOM MAGINNIS, ASSISTANT ADMINISTRATOR FOR OCEAN SERVICES AND COASTAL ZONE MANAGEMENT, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Mr. MAGINNIS. Good morning. I am Tom Maginnis, Assistant Administrator for Ocean Services and Coastal Zone Management, National Oceanic and Atmospheric Administration (NOAA). I am pleased to appear before you this morning to discuss both coastal pollution and coastal resource protection.

I understand the purpose of the hearing is twofold: first, to examine whether the Coastal Zone Management Act has fulfilled its proper role in providing for long-term conservation of coastal areas, and to examine methods to strengthen the performance of the CZMA; and second, to examine the interplay between Coastal Zone Management and Federal water quality programs, the long-term population and growth pressures that pose so serious a threat to the environmental integrity of coastal areas, and certainly to address that within the four corners of the Act.

Just briefly, I'll talk about some background. The coastline of the U.S. extends over 95,000 miles, bordering three oceans and five Great Lakes. Coastal climates range from tropical to arctic, and coastal shorelines vary. Over 52 percent of the U.S. population lives within 50 miles of the coast (1987 Bureau of the Census Report), and my understanding is that by the year 2000 that will rise to approximately 80 percent. Major cities and most heavy industry are located in coastal areas. So we understand that it's a daunting problem.

Congress responded in the 1960's, to a series of problems they recognized, by establishing a National Coastal Resource Management framework, with the passage of the Coastal Zone Management Act. The original Act was written to address four areas: recreation, estuarine protection, ocean development and land-use policy. It was really designed to interact with development, as opposed to being a protectionist approach. The Act established a national program to provide financial and technical assistance, and policy guidance to State and Territorial governments. The idea being that we would like to leave this authority in the hands of the government, but we wanted them to pursue a broader objective,

rather than a beggar-thy-neighbor policy. At this time 29 of the 35 States have federally approved coastal management programs and are receiving Federal funding.

You've asked a number of questions, and in the course of my statement I'll attempt to answer them. The first was, how effective is the CZMA in protecting coastal environmental quality?

Sixteen years after its enactment, the Coastal Zone Management Act is still the only legislation which requires a comprehensive, cooperative approach to the management of coastal areas. It's not a panacea, but it does provide a broad structure for interaction among States and Federal and local governments, and encourages them to comprehensively address specific programs. The CZMA has multiple goals and many of them are conflicting. The goals include coastal resource protection, economic development, public access, permit simplification, public education and a series of other minor goals.

As a result of the passage of the Act, the voluntary participation of the coastal States and Federal funding has resulted in a number of beneficial impacts to this program. We have improved land-use programs and other regulatory mechanisms that have been encouraged by the CZMA to impact coastal resources, improved economic health, as States have redeveloped waterfronts and ports, using CZMA money in some instances, improved public access, cultural and resource protection with 306(a) low-cost construction funds for boardwalks, boat ramps, acquisition of habitat, et cetera, and streamlined permit processes. There is more predictability, and timeliness, and improved intergovernmental coordination through Federal consistency.

That, obviously, in the opinion of a number of people leaves something to be desired, but we have a framework and we're making an attempt to continue working with it.

More specifically, there's been a significant improvement in the management of coastal resources. New laws, regulations and standards have been instituted, new governmental structures, memorandums of understanding, and other means of coordination and management have been created, not only between the Federal Government and the States, but also among the States and local governments. Federal funds have allowed State, local and private investments in the implementation of the program.

There are merging issues that were not, at the time the Act was first written, anticipated by Congress. Certainly the emphasis on seeking improvements in water quality, growth management, solid and toxic waste disposal, was not originally a central purpose of the Act. In addition, States are using more land-use planning and public capital expenditures to control growth.

You asked in your letter, what extent direct ties between water quality and coastal programs have already been established; how well the programs work together; and how we are working with EPA under the National Estuaries Program passed in 1987, and as that assumes a greater role, how we will be involved with the Coastal Zone Management Act.

Recently, NOAA and EPA signed a memorandum of understanding between the two agencies that coordinates the development of the National Estuary Program to implement comprehensive con-

servation management plans. There is explicit recognition in the memorandum of understanding that National Estuary Programs are part of a larger Coastal Zone Management effort. And in most cases, implementation of the National Estuary Program management plans will need to be accomplished through existing coastal management land-use planning and regulatory programs.

To minimize the overlap and conflict between CZMA and the Clean Water Act, CZMA requires the States to incorporate Water Quality Standards developed pursuant to the Clean Water Act into their programs, while requiring the States to protect fish and wildlife and their habitat within the coastal zone. As a result, we are working, as we have in the past, more closely with National Marine Fisheries Service's Habitat Division, and States are participating in joint permitting and other integrated reviews.

You asked what impact has the current division of responsibility for protection of coastal resource among several agencies and departments had on our ability to provide that protection?

We agree that without adequate coordination among Federal and State agencies there has been some duplication of effort and competition for scarce financial resources; this is obviously one of the reasons for the memorandum of understanding that we've signed with the EPA. This division of responsibility has, however, provided a safety net to ensure that no resource becomes threatened by one agency's single purpose program or mandate.

Conflicts in management can be reduced. There can be clear statements of goals and coordinated planning and decisionmaking. A framework for coordination exists in the CZMA and at the State level through the structure of coastal management plans. You may decide that you want to clarify some of the goals in the Act in the future.

You asked, "how might living resource and habitat considerations, which have traditionally taken a secondary position to physical water quality parameters, assume a greater prominence?"

A number of actions might be taken to broaden the narrow regulatory prospectives of most of the single-focused programs under the Clean Water Act and other laws. Congress could require the consideration of habitat and living resources in all coastal decision making, or you could mandate coordination among the Federal regulatory agencies and resource protection agencies.

We, are trying to be more aggressive in coordinating, both through formal task forces, and informally through agency leadership.

There is one last point I want to make. And that is, there must be some recognition of the need for leadership and creativity to avoid pollution, rather than to wait to deal with it after it is produced. A study we did several years ago pointed out that non-point source pollution is, in some cases, 40 percent of the pollution entering a particular estuary. So to clamp down on point source pollution, while it will be helpful, in many cases won't be enough.

Finally, one of the comments I would like to make is that in the significant improvement of the Coastal Zone 306 program, you could provide for a more competitive mechanism, as opposed to a strict formula. The purpose is, to encourage the States to use

things such as purview and to more closely look at the quality of their particular projects.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Maginnis can be found at end of hearing.]

Mr. STUDDS. Thank you, Mr. Maginnis.

Are you very recent in your current position?

Mr. MAGINNIS. Very recent. I've been in this position for only about a month. I was the NOAA Director of Policy and Planning for three years and then the Director of the National Coastal Resources Research and Development Institute in Oregon, and also an agent for the States of Oregon, Washington, California, and Alaska in the Coastal Zone 309 program.

Mr. STUDDS. Well, you're lucky to have returned to Washington, to have found a job, or even an agency, as you know. Congratulations. [Laughter.]

Mr. STUDDS. Ms. Rebecca Hanmer. You've had to get along with an entire line less of your title than Mr. Maginnis. I don't know if that's a terrible handicap, but you're on, from EPA.

STATEMENT OF REBECCA HANMER, ACTING ASSISTANT ADMINISTRATOR FOR WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY

Ms. HANMER. In my normal job, I'm a deputy, so I can at least add that word.

Mr. STUDDS. That's a great relief. For the Office of Water, it's entirely too clear. You're going to have to do something about that.

Ms. HANMER. Thank you.

I am Rebecca Hanmer, Acting Assistant Administrator for Water at the U.S. Environmental Protection Agency. It's really a pleasure to testify at this final hearing. I would like to congratulate the committee for holding these hearings, because I think they've brought out a tremendous amount of valuable information. And certainly, speaking for EPA and myself, they have caused us to get a lot of material together, and to take a look at what we're really doing and how good it is.

My statement, which you've indicated would be in the record, contains some information that updates the status of various programs that have been discussed in earlier hearings. I would like to have that in the record. I will simply summarize my remarks, and focus on the Coastal Zone Management Act in my summary.

I can't let this moment pass without saying at least one more time, that our estuaries and coastal waters are national treasures and they're also in trouble. As we look at the last 20 years, in which our society may have spent up to $200 billion for pollution controls for municipalities and industry, what we are looking at is significant improvements in some of our rivers, but at best, just barely holding our own in the coastal zone, and continuing decline in many estuary areas. Therefore, nothing could be more important to us in the Water program right now, than the issues being addressed by this series of hearings.

In these hearings, witnesses have raised the alarming specter of continuing degradation of both estuarine and coastal waters, as

well as loss of wetlands and rapidly declining fisheries. As I said, while significant progress has been made in controlling pollution from point sources, at least we're holding our own in the coastal zone—non-point source pollution, solid waste disposal and explosive growth and development in the coastal zone continue to be major obstacles to attaining our environmental objectives.

The challenge before us, then, is to turn this sad story around and move beyond simply holding the line to the recovery and enhancement of our coastal waters and coastal habitats. We have little choice but to confront head-on, the difficult issues that lie ahead, including the land-use issues and the waste issues.

Mr. Chairman, a forceful, coherent national environmental ethic needs to be clearly articulated throughout this Country if effective action is to be taken. While we must address marine dumping issues, and we are, our priority attention needs to be directed landward towards the sources of pollution and degradation of coastal waters: industries and farms, our homes and our roads—in other words, ourselves.

Our first order of business in this hearing is to look at the two principal statutes governing the coastal area, EPA's Clean Water Act, and NOAA's Coastal Zone Management Act, to see how they could do a better job of protecting coastal resources by joining forces under their existing statutory and regulatory authorities. Mr. Maginnis, for example, has just referred to the fact we've recently completed a memorandum of agreement linking the National Estuary Program with the Coastal Zone Management program. But there is much remaining to be done. However, while both of these programs share the same piece of real estate, each law was carefully crafted to avoid stepping on the toes of the other. Therefore, they can operate in tandem.

The common denominator between the two statutes is water. The Clean Water Act goal is to protect the chemical, physical and biological integrity of the Nation's waters. The Coastal Zone Management Act deals with land and water activities that have effects on coastal waters. From our perspective, one of the greatest strengths of the CZMA is its clear directive to the States to work with local governments to impose land use controls. States accepting the challenge have been working for years now to build the institutions and coalitions that are necessary to get State and local controls in place to protect the coastal zone. But, many States, by defining the coastal zone too narrowly, or by defining their objectives in too general terms, have not placed adequate emphasis on water quality and aquatic habitat protection, particularly in relation to upstream, and uplands impacts.

From EPA's perspective, of course, water quality is the name of the game under the Clean Water Act. The 1987 amendments will aid our efforts and those of the States in protecting and enhancing water quality in the Nation's coastal waters, particularly through the new provisions on non-point source pollution. This is the biggest contributor remaining to the degradation of our near coastal waters. The amendments created a new non-point source management program giving the States the lead in developing and implementing State management programs to prevent and control non-point source pollution. Thus, the law places responsibility squarely

on the shoulders of the States and local governments to exercise their authorities, including their land-use authorities to deal with non-point source pollution. In this respect the new provision is very similar to the basic tenets of the Coastal Zone Management Act, although the Clean Water Act non-point source provisions do not explicitly direct States to use land-use controls to protect water quality. Therefore, I think we need a collaborative relationship here.

Another new provision of the 1987 amendments, which has been discussed, established the National Estuary Program, which is a nationwide demonstration program targeting selected estuaries of national significance, and also estuaries in trouble. While the Coastal Zone Management Program allows the States to define the landward limits of their coastal zones, the National Estuary Program, in these demonstration areas, promotes basin-wide planning to control pollution and to manage living resources. As with the non-point source provisions of the law, however, the National Estuary Program has few direct regulatory activities, and relies extensively on grassroots support, on consensus building, and on the imposition of State and/or local regulatory controls where necessary to protect the estuary. One of the strengths of the estuary program is that all parties responsible for the implementation of the final product, the Comprehensive Conservation and Management Plans, will be involved in their development and final approval.

Under the recent memorandum of agreement, we have agreed that the Comprehensive Conservation and Management Plans, that is, the CCMP's will be submitted as a matter of policy to the Coastal Zone Management Agency for certification, and the Coastal Zone Management agencies have agreed to include the CCMP provisions, as allowed by law, in their Coastal Zone Management Programs. There are also other activities in which the Clean Water Act and Coastal Management Programs interrelate that ought to be mentioned briefly.

Under the CZMA, Federally permitted activities that will affect the coastal zone are reviewed before the permit is issued by the appropriate agencies for consistency. The permit reviews conducted by the State coastal agencies, in many cases, are very thorough. However, the quality of these reviews varies. Certain activities that may cause discharges to marine activities, for example, offshore oil and gas operations, have been highly controversial, and have received a great deal of attention from State coastal agencies. However, discharges onshore or upland discharges may have greater impacts on coastal waters than marine activities, and should receive commensurate attention from State Coastal Zone Management agencies.

The centerpiece of both programs is water quality standards. As we have indicated, water quality standards are an important basis, a key basis, for regulating for point sources under the Federal Clean Water Act, and they can also be used as a basis for establishing the connection between Coastal Zone Management Programs and Clean Water Act Programs. In that regard, the water quality standards, as we have testified earlier, need to be strengthened. We need to strengthen our water quality criteria, which are issued by EPA. We need to strengthen the State water quality standards. We

also need to broaden the coverage of the present water quality standards system to deal not just with chemical water quality parameters, but also with biological indicators and living resource parameters. We believe we have the authority to do that; it's a matter of science, time and money to be able to develop those tools.

While EPA has traditionally focused its attention on restoration of damaged coastal resources, this after-the-fact approach has been very costly and very time consuming. Statutory tools available to EPA and other Federal agencies now, as well as to the States, can be used to prevent degradation and protect coastal resources. One of these statutory tools—or rather, regulatory tools in the water quality standards, is the anti-degradation provision of all State standards. This particular provision, which controls the water quality impact of new development, has been implemented in a very irregular fashion to date, and is one of the aspects of the program that is key to effective management of the coastal zone, and it is also one of our priorities to strengthen. The land-use provisions of the Coastal Zone Management Programs, if aggressively implemented, would greatly reinforce both the non-point source control effort and the anti-degradation efforts under our water quality standards. And in fact, without this connection in the coastal zone, I do not believe that we will succeed in our efforts.

My statement, as I indicated earlier, contains a lot of information which updates a number of programs that EPA is engaged in. These are largely water quality programs. But before we leave the subject of what we're dealing with, I want to mention one element that we haven't covered very much, and that is in addition to land-use controls, and in addition to pollution controls and water quality measures, we need a much more forceful program to deal with the tremendous amount of solid waste and other kinds of wastes that our society generates. This is a big unfinished piece of business, which I think both the Coastal Zone Management programs and the Water Quality programs have to focus on in the coastal zone to stimulate Federal, State and local solid waste management and waste minimization efforts.

Cleaning up our near coastal waters and protecting our coastal resources will not be easy. It will not be inexpensive. In particular, we in EPA are very concerned about the State funding basis for water quality and wetlands programs, for administering these programs, and have initiated a State funding study to examine the magnitudes of these funding needs and Federal/State ways to address them. No matter what we have in our statutory authorities, if the State agencies required to administer them do not have adequate resources, then we will continue to have inadequate programs. We are looking not only at conventional ways of financing programs, but at a number of new and innovative financing mechanisms. An example of this is the recent Massachusetts Bay Trust Fund, which emerged from a consent agreement between the Federal government and the Commonwealth of Massachusetts; the monies in this trust fund will be used for a number of Massachusetts Bay activities.

In summary, I would like to close with just a few points. In order to reverse the degradation of our coastal resources we're going to

have to take concerted action on the part of the Federal government, States, local governments and citizens.

Second, the Clean Water Act and the Coastal Zone Management Act can be effective in mutually reinforcing and complementing each other. Attainment of water quality standards, in my opinion, is a very central element between the two programs. These standards need to be strengthened and they need to be enforced.

Finally, State Coastal Zone Management programs need to shift their program orientation to better reflect water quality considerations and make better use of the enforcement mechanisms of the Clean Water Act.

Time is precious when we consider the loss of wetlands and other degradation in the coastal zone. Time becomes even more precious when we talk about global warming. We must address the problems of the Coastal Zone Act now. The time-honored tradition of muddling through just will not work this time.

Thank you.

[The prepared statement of Ms. Hanmer can be found at end of hearing.]

Mr. STUDDS. Thank you very much.

We go next to Professor Oliver Houck, of Tulane, whom I notice has practically no title at all. How do you do that?

Mr. HOUCK. Thank you. I work at it.

Mr. STUDDS. I see.

STATEMENT OF OLIVER A. HOUCK, PROFESSOR OF LAW, TULANE UNIVERSITY

Mr. HOUCK. Mr. Chairman, thank you. It's an honor to be here. And I bring you all greetings from Coastal Louisiana. Every 14 minutes we lose an acre of our coast. By the time I get back to New Orleans tonight, we'll have lost 30 acres.

Mr. STUDDS. Every 14 minutes one of your Representatives reminds us of that, too.

Mr. HOUCK. I would hope so.

And by the time that these hearings roll around next year, at about this time, we will have lost 70 square miles. And that's a rate that's been increasing annually for the past decade.

Mr. STUDDS. Does this have an impact on redistricting in Louisiana? [Laughter.]

Mr. HOUCK. They're moving north right now, for good reason—every hurricane.

I was asked not to come here, though, and cry Louisiana. I was asked to come take a national look. And so, almost as an outsider, let me say the obvious. And that is, there are three enormous jobs out there in controlling pollution, controlling development and in restoration. No existing program, no program on the horizon is any where near up to the job.

And the reasons for that will fill libraries. They filled your hearings. But let me recap five. One, we've all been putting too much weight on the 404 program, more than it can carry, to save the coast. Geographically it doesn't coincide, in brutal hearing by hearing. And that's what I do down there. We just get murdered. We

lose. We just lose more slowly—404 can't do it in development control.

Similarly, you've designed a Coastal Zone Management Act that can't carry any weight at all. I mean, any act that starts by commanding an agency to protect and develop, close quote, has within it the seeds of its own schizophrenia. No one's happy with that, and certainly we're not down there. It doesn't save.

As far as acquisition goes, you've got Federal programs that don't have any money. We don't have a Federal acquisition program for coast lands. As far as pollution control goes, you have Federal programs that don't have any teeth. You have encouragement to the States. As far as restoration goes you've got a lead agency—and I've got a buzzer.

Mr. STUDDS. Don't be frightened. That's just——

Mr. HOUCK. I'm not frightened. I thought I'd be courteous.

Mr. STUDDS. No, no, no. There's no need to do that either. [Laughter.]

Mr. STUDDS. This is simply a 15 minute warning to the Nation that the House is about to go into session.

Mr. HOUCK. I'm nervous then.

Mr. STUDDS. I understand. Think how we feel. [Laughter.]

Mr. HOUCK. Let me just say that you put the Nation's restoration program in the hands of the Corps of Engineers whose mission still runs in exactly the opposite direction. They remain in our neck of the woods, a national coastal destruction agency.

So for those reasons, everything you've got going fails. It isn't up to the job. And let me make three recommendations to you for turning that around. On the acquisition side, I strongly recommend you consider a new Federal/State partnership modeled on the Pittman-Robertson Act, which is to me the most successful of the Partnership Acquisition programs. It establishes a Federal trust on an off-budget tax requiring a State trust, off-budget on the State level for entitlement to the Federal monies. The funding mechanism for that tax, to me, the funding source is real estate development. They're the culprit in this. I'm not saying they're evil, they're just causing the problem. In addition, they're where the money is. There were 187 million new housing starts last year, and there were probably triple that housing transfers.

Having proposed this idea to you in testimony, though, Mr. Chairman, I decided to test it out with the States. And between the time I submitted by written testimony and I came today, we took a telephone poll of every coastal State and we asked how they were funding acquisition, if they were in it at all. We found of 22 States, 13 have some kind of acquisition program on the coast. Of those 13, 11 of the 13 programs are funded on a catch as you can, general revenue or bond basis. Two of the States, however, Florida and Maryland, have just what I've been proposing. I don't know whether that makes me look good or bad, but whatever it does Maryland and Florida have real estate transfer taxes which are so successful that Maryland is diverting—has capped that revenue source and is diverting it back into the general fund. In Florida, which funds it's coastal acquisitions in three ways, mineral severance taxes, bonds and property transfers, property transfers are the largest single revenue generator, about $60 million a year. So, this is an enor-

mous untapped source of funding, which is the logical source to look to. And if a national program were based on it, and a State program were based on it in a trust, Pittman-Robertson way, you'd have the kind of mechanism that could get this thing going.

Short of that, I don't think you're going to find the money, and you're not going to find the State will. Virginia tried to pass, other States have tried to pass similar programs, and they failed. There hasn't been enough incentive to get them to bite the hard one, and go into real estate taxation. The States that have, as I say, succeeded.

Right now, the Federal monies are peanuts. There are some States in my neck of the woods that refuse to participate in the CZMA, or Land and Water Conservation Fund Planning, because the monies aren't worth the planning effort, to wit, Texas and others. There isn't a single acquisition on the Gulf Coast. So, the States are showing the way in this area, and we hope the Feds could follow that good lead.

The second recommendation I'd make to you is on pollution control. In that regard it seems apparent to me, that we're going to have to give EPA teeth, whether or not they want them. Right now all of the EPA programs on the coast are voluntary. Voluntary States getting together to talk about their problems and impose voluntary constraints. We saw that game under the old Federal Water Pollution Control Act, pre-1972. It didn't work then, and it won't work here. It seems to me that what's missing here is consequences. Nothing happens when you have a badly polluted estuary.

Now, I think you ought to have two consequences. First of all you ought to consider, in your coastal estuarine areas, a non-attainment concept similar to the one you have in the Clean Air Act. And when you are out of attainment, something happens. Your Federal subsidies for new development, for example, shut down. Now those are draconian kinds of penalties in the abstract. But the point is, in the Clean Air Act they remain largely in the abstract, but they remain tremendous motivators for the City of Denver and others to start bringing their air quality into compliance. Ditto the coastal zone. Without that kind of compliance mechanism, I don't think you're going to make too many willing States out of unwilling States, unless you want us to continue that tedious road to the courts, which loses everybody time and money and wears us out.

An alternative—well, this is a supplement suggestion that I'll make to you is this: agricultural non-point in the Gulf Coast is the coastal pollution threat. We have 2.4 million acre dead zone off of Louisiana for six months of the year. Nothing's out there. It's dead. It's oxygenless. And that's phosphates, nutrients, and basically agriculture runoff. Now what you need here, I think, is cross-compliance.

Two years ago the Congress took a very bold and innovative step with the Food Security Act, and imposed cross-compliance as a sanction for erosion controls, essentially for dust bowl kinds of problems. That same kind of cross-compliance should be required for pollution control, as well as erosion control. And if so, you could start putting in integrated pest management, best management practices kinds of technologies and requirements that you can't do now. The only thing that's going to bring the farmers into compli-

ance is the threat of the loss of the subsidies. If it's good enough for erosion control, it ought to be good enough for pollution control. If erosion control is the significance justification, then pollution is too. In our neck of the woods, it is the pollutant source.

All right. Lastly, restoration. Let me just say that it's hard for you here in Washington to appreciate the size of the restoration game. But there are some parts of our coasts that are so messed up, that if we don't take drastic steps, very quickly, to remedy them, we're going to lose—for example, all of Coastal Louisiana, which is a fifth of your seafood, a quarter of your migratory waterfowl, and about a third of your salt wetlands.

Mr. STUDDS. To say nothing of Congressman Tauzin.

Mr. HOUCK. Well, Billy will just move north. He's a survivor, as well as constituents. And they'll still vote for him, but they'll be living on dry land. He knows it. He flew over that coast in a helicopter here this last two weeks. And he looked down, and he said, you know, I'm looking at Louisiana 50 years from now. At that point the waters of the coast are up around Tchopatoulis Street in New Orleans.

We're looking at a catastrophe in progress down there, the dimensions of which are hard to appreciate. And the solutions are going to require moving people, moving the Mississippi River, and moving of all things, the U.S. Army Corps of Engineers, which may be the toughest of all. [Laughter.]

Mr. HOUCK. And in order to do that, there are going to have to be new marching orders. There's going to have to be a new public works priority.

So I ended up crying Louisiana, which is what I said I wouldn't do. So, I'll stop.

But I want to thank you for the opportunity to be here. I hope these thoughts are useful to you.

Mr. STUDDS. They are indeed.

Mr. HOUCK. Just say, they're the product of years of worrying about it.

Oh, by the way, if I could add, Mr. Chairman——

Mr. STUDDS. Certainly.

Mr. HOUCK. This telephone poll I took of the States, I have written up and prepared for you and your committee members, with the thought that if you do nothing else, this funding mechanism and this new acquisition program is the most important think I could urge on you. So I have it here in writing. I have a few more copies, and I hope it's useful to you.

[The prepared statement of Mr. Houck can be found at end of hearing.]

Mr. STUDDS. I appreciate that. I appreciate your testimony. There are lots of questions that I would like to ask in response to that, but I'm going to defer until we get all the witnesses in, hopefully prior to the next ringing of the bells.

Mr. James Ross, Director of the Oregon Department of Land Conservation and Development.

Mr. Ross?

STATEMENT OF JAMES F. ROSS, DIRECTOR, OREGON DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT

Mr. Ross. Thank you, Mr. Chairman. I am Jim Ross, Director of Oregon's Department of Land Conservation and Development, which is a State-wide planning agency and is also the agency responsible for Oregon's coastal management program.

You have my written testimony. I'll not go into the detail that is included there. I've responded in that testimony to the questions that you've asked and I'll not repeat that information at this point.

What I'd like to do, Mr. Chairman, and members of the committee, is offer what I hope is at least a small ray of sunshine in what otherwise seems to be a pretty gloomy forecast for coastal waters.

In Oregon, our Department of Economic Development has a slogan. They say, "Oregon, things look different here." And in fact, things do look different, I think, in Oregon. We're truly fortunate. Part of that's luck. I'd like to think some of it is good management. I know a lot of it is based on the fact we only have 160,000 people living in the State's coastal zone. We don't have hospital wastes floating up on our beaches, and our estuaries aren't fouled by poorly treated municipal and industrial wastes. And sewage sludge and garbage wastes, and industrial wastes are not smothering our ocean floor with a black gelatinous ooze.

Water quality, as you heard from one of my colleagues, I believe, earlier this year, is in fairly good shape in Oregon, and we're taking steps to improve it further. It hasn't always been that way. We were once fouling our own nest, and if we're not diligent, the same thing will happen again. And I need not advise you of that problem, you're well aware of it.

In 1970, in response to sewage on our beaches and our bays, then Governor Tom McCall put a moratorium on coastal development projects. Today every one of Oregon's coastal cities has at least secondary sewage treatment. In the 1960's untreated effluent from paper and lumber mills threatened coastal fisheries and closed many of our oyster beds. Today those mills have installed secondary sewage treatment. In the late 1960's unregulated dredging and filling threatened our estuaries. Oregon put together a fill and removal law which I think is second to none, goes beyond where the Federal programs go, and tightly regulates estuarine alterations and requires mitigation for all new dredging and filling activities.

Again, in 1970, Oregonians realized that effective protection of the environment required more than simply reacting to problems. We realized that we needed to anticipate the ultimate effects of development, and avoid problems before they happened instead of treating them afterwards. We also realized we wanted to have our cake and eat it too. We wanted to keep Oregon, Oregon, and we wanted to provide for growth and development. We wanted to be schizophrenic, I gather, according to my colleague, Mr. Houck.

We've done it by taking a long range or strategic view of both our environmental and our economic needs. Through the State's land-use planning program, which is a foundation, again, for the State's coastal management program, we have locally developed State approved comprehensive plans covering the entire State. We are one of the few States that can make that claim. The plans

make long-term decisions based on specific State standards that protect important resources and provide for needed development.

I might add, if you want to protect coastal resources, tell the developers where they can go—that didn't come out correctly. It you want to protect coastal resources, indicate in your comprehensive plan areas that can be developed, and make it easier to develop in those areas, rather than more difficult. And that's a concept that is difficult to grasp, but believe me, it will work. It can work, and it does work, and is working in Oregon.

Let me share with you some of the results of what has happened in the State to date. First of all, as it relates to our estuaries, we've planned and zoned over 95 percent of our estuarine area for maximum protection, where little or absolutely no development activity can occur. But in a small percentage of the area, areas that are uniquely suited to water-dependent development, we have indicated that based on certain standards and certain performance, development can occur there, and we've tried to facilitate that development activity.

Mr. STUDDS. Can I interrupt you just one second? Just for the record, for what's left of my mind at this hour, roughly what percentage of the Oregon coastline is in public ownership?

Mr. ROSS. About 50 percent of our coastal zone is in public ownership.

Mr. STUDDS. And of the immediate coastal area?

Mr. ROSS. Of the immediate coastal area, about 30 percent of it is in private ownership, however, we do have what's commonly referred to as the Beach Bill, which up to the line of vegetation, about the 16-foot elevation line, all of that area—all of the wet and dry sand to that point is publicly controlled.

Mr. STUDDS. But just for the context, that sets you apart orders of magnitude from any other State, does it not. The problems you face, the situation you face for whatever historical reasons, you have your most vulnerable areas protected, unlike most other States.

Mr. ROSS. Mr. Chairman, we're truly fortunate in that regard. Governor Oswald West in 1903, and the legislature in 1913 passed legislation designating all of our wet sand areas as a public highway. In fact, we still have a 25-an-hour speed limit on it, even though we don't allow cars out there.

Mr. STUDDS. Very good.

Mr. ROSS. We only have about 20,000 acres of tidal marsh. Only 113 acres is planned for development. The rest is preserved. And, by the way, we are creating more, rather than allowing the 113 acres to simply be lost and detract from that total amount.

Our coastal zone extends to the summit of the Coast Range and takes in all coastal drainage basins That's the only way one can do legitimate and logical planning in the context we're discussing here. Ninety percent of that area has been placed in farm and forest zoning, which limits dwellings essentially to those that are resource related, and bans all subdivisions. And at the same time, we've provided for future development by requiring every city and county to adopt urban growth boundaries around their cities, within which they must provide adequate future industrial, residential and commercial development opportunities. And we've re-

quired that they plan for facilities and services to make development happen in a financially and environmentally responsible way.

In short, we have anticipated and dealt with the big issues up front. By taking the long range view, we think we have minimized the potential for problems in the future. Like other States, however, things are not perfect. For example, we do need to do more work in the area of non-point pollution from agriculture land and forest lands, even though our planning program is done within a river basins context.

Nonetheless, by making overall decisions about where development will go, we have set some limits on the magnitude of future problems we'll have to deal with. Our problem that I want to share with you, and was covered in one part of my written testimony, is that the Federal government is still reacting to problems as they occur. As a State, we are dealing with a set of Federal environmental laws that respond to new development proposals on a plodding project-by-project, case-by-case basis. And the problem is it is frustrating at best, and at worst could ruin Oregon's coastal management program in that those Federal agencies are not able to operate within any kind of a long range planning context.

Let me comment about how that problem manifests itself in terms of our estuarine planning with the very limited amount of area set aside for development. Those plan decisions were made after broad discussions with all local, State, and Federal agencies that have some say as to how we're going to manage our land and water resources. And by the way, Mr. Chairman, in one of our bays on the Oregon Coast, that's 42 different governmental entities, 42.

Our decisions were based on detailed economic studies and consideration of alternative sites for port development, and we've told our public and private port development interests they can rely on those plans, and unfortunately, they can't. At least as far as Federal environmental agencies and statutes are concerned, because under current Federal law the basic issues of need for a proposed use and availability of alternate sites, in spite of it being addressed in the context of our comprehensive planning program, must be reconsidered, must be decided again. And it's interfering with the State's effort to take a strategic long-range view. It hasn't prevented us from protecting natural resources. But it has prevented us from implementing the strategic decisions about where development can and should go.

And the reason is, Mr. Chairman, and in summary, the Federal laws that I'm speaking to, are not set up to make long-term regional decisions in a planning framework. And that, I think, is our plea to you today. That these laws be revisited and reframe them so that administering agencies can shift from a strictly reactionary mode to an anticipatory mode, from regulation to planning. And until they do, much of the efforts that States have made through their coastal programs, where they have approached it in the manner Oregon has, will fall short of the objectives of the Coastal Zone Management Act.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Ross can be found at end of hearing.]

Mr. STUDDS. Thank you, sir.

We'll go next to Mr. Langdon Marsh, of the New York State Department of Environmental Conservation, the Executive Deputy Commissioner.

You're not by any chance, the acting Executive Deputy Commissioner?

Mr. MARSH. No, at least not when I left this morning.

Mr. STUDDS. Good. Welcome.

STATEMENT OF LANGDON MARSH, EXECUTIVE DEPUTY COMMISSIONER, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Mr. MARSH. Thank you, Mr. Chairman, and it's a pleasure to testify before your committee again. Jones Beach was the last time. It was a splendid day and very useful testimony. In fact, from what I've heard of all these hearings, they will be substantial contributions to the advancement of Federal policy. And we welcome that.

Our beaches, shorelines and oceans are in trouble. There are major impacts that we need to deal with beyond the immediate problems caused by wayward barges and washups. We have algal blooms, anoxia, contaminated or diseased fish or shellfish, die-off of scallops and other species, unsightly shores and diminishing access for the public. The Coastal Zone Management Act has aided States in planning and implementation of laws and programs like wetlands protection, waterfront revitalization plans, the inventory of significant habitats, coastal erosion prevention and so on. And States, like ours, have done much on their own to try to complement and emphasize and increase those programs.

Some of this has included land acquisition. We have had a bond act, or two bond acts, for wetlands acquisition since 1972, and there is still plenty of money left in them. Coastal planning has been done, of various kinds, but we are fighting a very difficult battle. Both State and Federal programs are quite inadequate to deal with many of the sources of pollution, many of the losses of resources for public recreation, and just plain ecological damage. And at all three levels of government, including local government, we need to do much, much more.

So our overall evaluation is that CZMA is a good, but insufficient tool to accomplish the kinds of things that we all need to do.

One of the problems is that the funding levels have been inadequate to meet many of the needs of some of the very vital programs that we operate. For example, a recent independent assessment done by a citizen group of our Tidal Wetlands Program, which was supported with CZMA funds, resulted in the identification of a need for 21 additional staff positions just for that program alone, not including attorneys and law enforcement officers. Presently the CZMA funds support one of the positions that we do have, and that funding is scheduled to end next year.

Secondly, apart from the fact that CZMA funding has been insufficient, that funding has not been reliable over the long term. In order to run any resource management program effectively, there must be a stable and continuing source of funding. The funding level has not kept pace with inflation, nor has it begun to address the need for implementing approved State programs.

We believe that some significant improvements could be made in the CZMA to require State programs to more effectively link controls for land-use decisions with resource protection. In part, this can be accomplished by requiring the States to establish performance standards and criteria for development to be implemented in cooperation with the coastal municipalities. In part it can be accomplished by tightening State water quality standards and relating them more directly to land use.

Of course, in order not to drive States out of the program by establishing unreasonable requirements, a delicate balance of incentives and mandates should be considered. Most of the controls will continue to be administered by local government. For example, we have 255 local governments in our coastal area that we have to deal with.

I would also emphasize that land acquisition is an extremely important tool for protecting coastal resources. As I mentioned, our Tidal Wetlands program is supported by a bond act. Our ultimate goal is to acquire all tidal wetlands in our coastal area to make them part of the public domain. That goal cannot be achieved, I believe, by ourselves alone.

Revitalization of the land and water conservation fund, along the lines of the Udall-Chafee bill would be one step that would be essential. And some linkage should be established to assure that priority is given to the protection of coastal resources by use of these funds, in combination with State and local monies. We've done this with our bond act regulations in New York, and I think that can be done at a national level.

There are a number of other areas that I touch on in the testimony that, for example, giving greater protection in law to fish and wildlife habitat, more directed Federal funding for public access, extending the Coastal Barrier Resources Act to the Great Lakes, and I guess since we're all bashing on the Corps of Engineers, we have another gripe with them, and that is that their preferred alternatives should not be allowed to be considered the Federal standard when they do not comply with State law.

So, we appreciate the interest of this subcommittee in protecting coastal resources and look forward to working with you toward this objective in the months ahead.

Thank you.

[The prepared statement of Mr. Marsh can be found at end of hearing.]

Mr. STUDDS. Thank you, sir.

Dr. Sarah Taylor, of the Maryland Department of Natural Resources.

Dr. Taylor?

STATEMENT OF DR. SARAH TAYLOR, EXECUTIVE DIRECTOR, CHESAPEAKE BAY CRITICAL AREA COMMISSION, MARYLAND DEPARTMENT OF NATURAL RESOURCES

Ms. TAYLOR. Thank you very much, Mr. Chairman.

I'm here presenting the statement for Judge Solomon Liss; the Chairman of the Chesapeake Bay Critical Area Commission. The Commission, in essence, is the new kid on the block, as far as land

use is concerned. It was only in 1984 that Maryland actually began to awaken to the growth pressures that were occurring around it's part of the Bay, and enacted the Critical Area law as part of the Bay clean-up effort that the Commonwealths of Virginia and Pennsylvania and the District of Columbia also agreed to undertake.

I'd like to do four things in five minutes: (1) give a synopsis of the Commission (2) talk about the Commission's land use program (3) give a prognosis and (4) make recommendations to the FCZMA reauthorization.

The Critical Area Commission was created because the State of Maryland did not have strong land-use laws, or a strong land-use program enacted. And even though we had the Maryland Coastal Zone Management program, which as far as resource identification and resource management was concerned; our efforts did not stress the land-use side of coastal management but rather our water resources and natural resources side.

We have experienced a loss in our resources, but, certainly not so great as Louisiana, and not so much either with our wetlands in Maryland. We have experienced a loss of habitat of over 10,000 acres a year, at least from 1970 in forest land and agricultural land. We have also realized that our land is being used on a greater per capita basis. In other words, what we're building is using more land per person than we have experienced in the past in the State.

Our residential uses are the cause of 90 percent of the increase of land use growth in our coastal areas. And 65 percent of all the growth in Maryland has occurred exactly where we didn't plan it. So the Critical Area Commission was called in. The Commission was given a three-goal charge: to minimize impact to water quality; conserve fish, wildlife and plant habitat; and to recognize that growth is going to occur and that there's going to be an environmental impact with respect to that growth.

I say we're the new kids on the block, because we're not as comprehensive as Oregon, but rather our critical areas, around which this land-use planning and enforcement effort is taking place, is a thousand-foot strip from the MHWL around Maryland's tidal waters and the landward side of tidal wetlands. It also includes the tidal waters themselves, and the lands under the waters. This geographic area is important because for Maryland, it happens to be where most of the variety of our habitat areas and remaining resources exist.

The Commission is comprised of a State and local government mix, and it brings in interests from all around the Bay, including developers, realtors, environmental groups, timber harvesters, farmers, et cetera. Six secretaries of the departments that have primary planning and action functions in the critical area are on the Commission as well. I think that this mix has helped to make the Commission successful to date.

Sixty local governments are affected by the Commission's actions. The central Commission action has been to develop criteria and guidelines which the 44 towns and 16 counties would have to use in planning their growth—where it was to go, and where resources were going to be protected around this thousand-foot strip. This was a phenomenal task.

What has also made the program successful so far, is the fact that each local government has had to incorporate certain basic criteria into it's local program to address different types of land use. They had to categorize from December 1, 1985 which lands were Intensely Developed, and upon which they had to put in place corrective water quality measures and public access measures to improve water quality and to improve habitat.

The second classification was Limited Development (typified by suburban characteristics) upon which other standards had to apply. Standards were set up to minimize impervious surfaces to 15 percent of a site. There was a formula for tree cutting as well as for the replacement of trees on site. In addition, wildlife were required to be provided corridors. The third classification is Resource Conservation consisting of open space lands, forests and agricultural land. There is a density of one dwelling unit per 20 acres when development occurs. This density has kept the remaining large parcels and spaces around the Chesapeake Bay open in a very effective manner. If the dwelling density was reduced, you would see the land gobbled up in the same way that has traditionally been experienced over the last decade though development.

Specific habitats are mentioned for protection. If this had not been done in the criteria, you would see many of them not being identified, not managed and eventually lost. And what's more important is, local laws have had to be changed to reflect these standards.

I'd like to emphasize a point that's been mentioned around the table here this morning; and that is, if we don't include the local governments in a strengthened Coastal Zone Management Act, and mandate it, and mandate that changes be made with local codes and ordinances, and standards, you're not going to see much happen at all. The local level is where the power lies; with land use and land development.

The Commission also has enforcement capabilities. It can see that projects that are granted approval stay within keeping of the Commission-approved local critical area program. And what's even more important is that State agencies are required, for the first time, to follow the same standards that the local governments must follow. Every project that is proposed that is State sponsored, must be approved by the Commission.

Perhaps something of this nature of Federal projects coming into the critical area ought to meet the same guidelines, but we're trying very hard with Federal Consistency right now.

I've covered a little bit about the Commission and what it does. I've mentioned a few important points that the critical area program contains within it. I'd like to move on now to a few suggestions for strengthening the Coastal Zone Management Act.

I think what you've probably heard from us is that the Coastal Zone Management Act needs to emphasize and be directed toward land use and growth control. Most of what we have seen, except for maybe a half a dozen States, has been a concentration on water resources and on identification of natural resources.

I would also suggest that while the States are having their funding levels examined, that the Federal government agencies ought to have examined their actions, their policies, their programs, and

their permitting processes in land use and development. We make a decision at the State level, based on local critical area programs, to set aside land for habitat, and we see a Federal agency granting a permit to allow development there. This is causing a little bit of difficulty. There must be a way through the CZMA in which State and local decisions on land use are supported by the Federal agencies.

Nationally, the Department of Agriculture through Soil Conservation and Water Quality Plans stresses optimum crop yield and drainage of water. The Department does not include, nor is there a mandate to include in these plans, habitat creation, planting of trees, and other techniques habitat that could help maintain the habitat diversity needed around the Bay. Somehow, Agriculture as a contributor to non-point source pollution from the land should be examined.

We also suggest that local, State and Federal partnership be mandated. In other words, the locals have the zoning authority, the States can use Federal standards to set up a framework, and the Federal government should set some rather specific standards for States to follow in looking at land-use elements and adding land-use elements into the Coastal Zone Management Act.

And I'd like to agree with several other statements that have been made this morning. These statements deal with acquisition and easements. Even though Maryland has a program that is based on the real estate transfer tax, and has had a very good positive experience with this, more of it is needed. And it's not just Federal, State and local, but we need to somehow encourage the private sector as well. Around the Chesapeake Bay the Baltimore Gas and Electric is raising rockfish that they release. We have a Chesapeake Bay Trust where State monies are matched 50/50 with private sector contributions. There need to be some incentives built into the CZMA that involve the private sector as well.

Maryland is also looking quite closely at biological aquatic standards, for water quality. We are experiencing population growth, and our water quality standards are basically for public health. If we keep our focus on public health it's not going to do so much to help bring back the aquatic resources in our estuarine systems. We need to bring aquatic resource parameters into our water quality standards. This is not just point sources, but for non-point sources as well. We need these standards at the Federal level, perhaps not in the CZMA but as a compliment to them.

And with that, I'd like to close my comments and thank you very much for inviting the Critical Area Commission to present and to make some recommendations and suggestions for strengthening the Coastal Zone Management Act.

Thank you.

[The prepared statement of Ms. Taylor can be found at end of hearing.]

Mr. STUDDS. Thank you, Dr. Taylor.

Mr. Houck, your worst fears have been confirmed. The legislature is in session, and not only your coastal zone, but your life, liberty and property is in danger, as you know.

Mr. HOUCK. Thank you for that warning.

Mr. STUDDS. Yes.

We have now—you're all victims of a peculiar Washington arithmetic. Your six five-minute statements consumed 64 minutes, and at the moment those last two bells mean that there is a vote on the Floor of the House, which means we're going to have to suspend. Everything else is happening at once, as you probably know, in the last weeks of the session here.

It may be that I and other members will have to appear before the Rules Committee in a few minutes trying to rescue other efforts of this Subcommittee in the waning days of this Congress. God knows what else will happen on the Floor, but I'm going to try very hard to return in only the matter of time it takes to go across the street and come back, and hopefully have a chance to ask some questions, because I very much want to do that.

If we have very little time, let me just say that I'll probably have to simply ask you for your English language, shortened version of what you would most like to leave with this Subcommittee, which is a question I want to ask you anyway, and frequently do. I hope we'll have more leisure than that, but if not, think about that for a moment. You don't need to be polite to one another, or to this Subcommittee. You've already pretty well thrashed programs that are administered by people at the table, and conceived by this Subcommittee in part. [Laughter.]

Mr. STUDDS. Please think in the most concise ways and in the most straightforward language about the message you would like to leave with members of this Subcommittee.

And we'll be back as fast as we can. The Subcommittee is momentarily adjourned, and we apologize for the inconvenience.

[Recess.]

Mr. STUDDS. The Subcommittee, such as it is, will come to order.

I apologize again for the delay. It's worse than usual in the last few weeks, and that's what we're in. We may or may not get a chance before the bells ring again.

I and the staff between us have a number of questions in varied level of detail, but I don't know that we're going to have the luxury of getting into the detailed ones. The simple translation of what the non-Federal witnesses have had to say, I think, is with all due respect to the very nice human beings here representing the Federal programs, that they're somewhere between inadequate and irrelevant, given the—not you personally, I hope—given the magnitude of the nature of the problems that are confronting the coastlines.

First of all, is that a fair summary, so far, I mean of the non-Federal witnesses? We aren't beginning to approach the problem adequately, if I hear you all correctly. Does anyone take issue with that as a generality? That hurts the feelings of this Committee, of course, because we've labored long and hard over the years in the Coastal Zone Management Act. I, myself, presided over the 1980 lengthy procedure whereby we reauthorized and we hoped strengthened it. Obviously, we didn't. I learned at that time not to look too carefully—I'm not a lawyer—at the language of the statute because otherwise you might dissolve into tears and never go anywhere, particularly things like the consistency provisions, which nobody could parse and almost no one could understand, but no one wanted to change because they said everyone had been working with it for a long time and grotesque though it may be

verbally, it seemed to be working. And for God's sake don't tinker with it, because lawyers will reinterpret it for another decade before anything can happen.

You are right, which ever one of you it was that pointed out that the Coastal Zone Management Act says that we're going to preserve, protect, develop, restore and enhance—or enhance, it says, where possible. Only in Washington would that appear to be not inconsistent. [Laughter.]

Mr. STUDDS. I'm surprised we didn't throw some more verbs in there.

I recall one of our major battles in the 1980 reauthorization process was whether or not to mandate States to set aside areas of particular concern or of national significance. And, of course, we lost that battle—that was too close to what was a violently red flag in the rhetoric of American politics, namely Federal land-use planning. There were times when people had political heart attacks over the mention of that phrase. They may still be here. We're ruled by people who are subject to such attacks at the moment.

Mr. Maginnis, you're here only because, as you know, the Congress ignored the eight consecutive years of recommendations by the Administration that you not be here, and that there not be a single penny for your program.

Ms. Hanmer, you're here, at least in large part, about a third of you, because we ignored the Administration's recommendations to decimate, or worse than decimate, that's only cutting by one-tenth, I suppose, cuts in the order of magnitude of 30 or 40 percent of the EPA budget recommended by this Administration, at least in the early years—sort of institutional hari-kari was requested by the early administrators and this Administration.

The Congress showed uncharacteristic good sense, I think, in ignoring those recommendations all together. Otherwise we couldn't have had this hearing. There would have been no you. There probably would have been no EPA. There certainly would have been no CZM. But even though we've salvaged, on a very modest scale, those agencies and those programs, the non-Federal witnesses have said to us that—this is not their words, but in effect—given the magnitude of the problem it may or may not have been worth the effort because we aren't beginning to cope with that problem. Things are getting bad and are getting worse, I gather, at an accelerating pace.

Now, Mr. Ross, you're shaking your head. You come from Oregon, that's not fair. [Laughter.]

Mr. ROSS. I am, Mr. Chairman. You have indicated, or characterized, what we said, and I wouldn't interpret that to mean what I said as well——

Mr. STUDDS. Fair enough.

Mr. ROSS [continuing]. That Federal programs are somewhere between inadequate and irrelevant. And that's certainly not the message I want to leave with the committee.

I think the message I want to leave with the committee is that there ought to be a partnership here, and we have several pieces of Federal legislation, Section 404 of the Clean Water Act, the Fish and Wildlife Coordination Act and the Endangered Species Act, where there is either unwillingness or inability, and I think it's the

latter, to look in a context beyond the regulatory case-by-case permit issuance mode and look in the context of long range planning. That's what we need. And to be a true partnership between State and Federal government in managing natural resources in the coastal zone, I think one has to have that partnership fulfilled by those Federal agencies having that capability. That's my message.

I think that there is improvement that can be made in some of the Federal programs that will help the States.

Mr. STUDDS. I understand what you're saying. And I certainly understand the theory, certainly, of the Coastal Zone Management Act and many of the other statutes is precisely the partnership and trying to recognize the unique responsibilities and abilities of the various levels of government. And God knows, as you've all pointed out, there are many levels of government, which is one of our problems in addressing many of these areas.

But I think it's also fair to say that the State of Oregon is uniquely blessed amongst the coastal States, with respect to the public ownership of so much of the resources, which in other States are developed or about to be developed. The difference between your State and the coastline of Massachusetts, as I'm sure you know, or most of the East Coast States for that matter, is that almost every inch of shoreline is built on, and in private ownership. It's a phenomenon you do not face.

Yes, Mr. Houck?

Mr. HOUCK. I'd like to observe, since it's your focus to folks on the Coastal Zone Management Act, that this is two statutes in one. It's a zoning program and it's an acquisition program.

As a zoning program it can't work, because zoning can't hold the door. The pressures are too inexorable. They can only buy time. We should use the time to accelerate an acquisition program so we can get to Oregon's posture of having the luxury of public lands.

Now, if I understand the Oregon position, it is that the State ought to have a greater say in the planning of those decisions and the Feds ought to stay out once we make those decisions, 404 and the rest. I'm not sure I subscribe to that, but I don't think that's before you today. I think the most important thing that's before you today is to try to strengthen the zoning tools, recognizing that they're only time buyers and to accelerate the acquisition tool.

Now, if you want one single thing to improve the zoning element of the Coastal Zone Management Act, it would be to incorporate a 404(b)(1) guideline-like requirement into coastal zone management. So that the development wasn't simply contingent upon whether or not we could hook it on 404, but all development throughout the coastal zone had the same kind of a coastal dependency test that we have for wetlands dependency. That isn't going to save the day in places like Louisiana, where most of that destruction is taking place at the hand of the oil and gas industry, which needs to be there to get its oil and gas, ergo we lose the——

Mr. STUDDS. And powers even higher than they, right?

Mr. HOUCK. I don't know of any down there.

Mr. STUDDS. I meant the destruction of Louisiana's wetlands, is also there are some natural forces at work are there not?

Mr. HOUCK. There are natural forces at work, but we have 10,000 miles of oil and gas canals through there that have ripped it up like a rug. I mean the willful, deliberate destruction of South Louisiana is its story. At the hands of oil and gas we probably have lost 75 to 90 percent of that zone, either through navigation canals or through access canals for the oil and gas slips. And the tragedy is that that access could be provided in benign ways that would simply cost more. Now, the remedy there is in the 402 program. The remedy there is outside the jurisdiction of this committee, and that's why I haven't raised that issue today. But there are benign technologies which could be imposed just the way we require manufacturers to use best available technology, we could require coastal destroyers to adopt——

Mr. STUDDS. You're allowed to roam and range beyond—we're not bothered by petty jurisdiction——

[Laughter.]

Mr. STUDDS [continuing]. It's not in a comprehensive set of hearings.

Mr. HOUCK. Well, thank you, thank you.

Having roamed this far to Washington, then, allow me to finish that sentence. There is a way to cure that.

But I'd like to come back to the coastal zone management fixes, if you would, and you left us with a question what do we recommend most highly in simple English. A, put a (b)(1) guideline like coastal dependency tests in the Coastal Zone Management Act for any development out there. B, provide a funding mechanism in 306(a), which is your present $4 to $5 million a year, peanuts, that establishes a Federal trust conditioned on a State trust. The beauty part of the Pittman-Robertson program is it doesn't just require a State match, it requires State legislation that establishes a State trust. That's why it continues to succeed years after year, and withstands the ravages of desperate State legislatures for funding for other sources. It's because they've set it up off-budget at the State level too.

Now, you already have an off-budget Federal source in the Land and Water Conservation Fund, if you can every free it. So you don't have to do anything terribly innovative with the Federal source other than to add a new source for the funding as you did with superfund, you add a new source which is property tax. Then you require that at the State level—and I'd bet you'd get some very enthusiastic State witnesses and State delegations supporting that from Florida and Maryland for openers.

So those are the thoughts that I wish to leave you with, and at the risk of talking too much.

Mr. STUDDS. That's fair enough. But before I go to everyone else for their input, let me just add one clarification. You suggest a coastal dependency test for all development in the coastal zone.

Mr. HOUCK. In the coastal zone, in a designated coastal zone.

Mr. STUDDS. Does that include—I hasten to ask on behalf of the first hundred thousand of our constituents that have heard that—does that include private residences?

Mr. HOUCK. Yes, all development.

Mr. STUDDS. How does one make a case that a private home is coastal dependent?

Mr. HOUCK. It's very difficult. It's very difficult.

Mr. STUDDS. I would think so. Okay.

I'm just thinking realistically of our prospects here.

Mr. HOUCK. No, I think that the way that you would avoid the taking—I mean, you've got a political problem and ultimately a legal problem with the taking aspect of it. It seems to me that you can salvage that in two ways. One is, to impose this on a time scale so that you give acquisition a chance to work in the critical areas. So we'd be talking about a temporary moratorium for which the private land owner would be compensated.

Beyond that, I don't have an answer other than unless you do private development you are back in Cape Cod, Atlantic Coast of Florida, all of that's private development. I don't know how you can make the exception and hold the coast.

Mr. STUDDS. I hear you. This is being debated, as you probably know, on Cape Cod.

Who else would like to jump in at this point?

Mr. MAGINNIS. Mr. Chairman?

Mr. STUDDS. Mr. Maginnis.

Mr. MAGINNIS. Mr. Chairman, I'm not going to attempt to defend the administration of the Coastal Zone program. I like to think of myself as attempting to provide solutions rather than perpetuating what you have seen in the past as a problem.

And I know the Reagan Administration has in the past opposed these programs on principle. But they've also opposed them on the basis of their cost, and as someone who comes from Senator Hatfield's staff in the past, and worked quite a bit with appropriations, I'd say that until somebody is willing to tackle entitlements, it's going to be hard in any Administration to look at the issue of domestic discretionary funding for any of these programs. So there is a certain amount of logic to what has happened with this Administration.

Mr. STUDDS. Good try. [Laughter.]

Mr. MAGINNIS. But I'd like to go on and talk a little bit about my last three years. Three years ago I accepted the job of the National Coastal Resources Institute Director out in Newport, Oregon, and lived in a small town on the coast. I moved out, I joined Rotary, and I joined the Port of Newport Planning Commission. I joined the Yaquina Bay Economic Foundation, the Coastal Renewable Resources Alliance and the Newport Airport Commission. I wanted to become a member of the community and be involved in the community. And what I found when I went out there opened my eyes. You know, we've all talked about the problems on the coast, but we haven't really talked about the people on the coast.

Most of the communities on the Oregon coast, for instance, have had up to double-digit unemployment for the last decade. When this country was in a position of having economic good times, the coast had economic bad times. The point is, there are mostly low-paying jobs out there. Quite a number of the people out there are scraping along. They have a very thin cushion.

When I moved to Newport, half the homes—I mean, literally half the homes—were for sale. I should say homes above $60,000 were for sale. My wife and I were looking through them. Quite a number of those homes had the former owners living in them and renting

them. Economic conditions were so bad out there that they had to let their homes go to the bank, but the bank wouldn't take the homes away because the bank couldn't find anyone to buy them. So there is a whole other dimension to this. These people don't have as many options as possibly we do.

Another problem they have is a very narrow band of similar industries. In Oregon one of our lobbyists is fond of calling them the four F's: fishing, farming, forestry and fun, or in other words, tourism. And we're not talking about mega-corporate farms, we're talking about 20, 30, or 40 acre berry farms. These are small industries that are controlled by external forces like the value of the dollar and the size of the deficit, so they don't have the options.

The conclusion I came to from living out there for three years was that working through the States made sense. These two gentlemen have made my case for me in an excellent fashion that the problems you're looking at are, in many cases, regional problems. I agree completely with Mr. Houck about what's going on in Louisiana, in the Gulf, in Florida and in the southeast, where something like 40 percent of all the 404 permits are being granted. But you get flexibility by working through the States.

Mr. STUDDS. What point are you trying to make? No one's questioning the key role to be played by the States.

Mr. MAGINNIS. Pardon?

Mr. STUDDS. The real question before us is not, do the States have a key role. Everyone knows that and concedes that. The question is wherein lies the national interest and the national role and what's the proper balance.

Mr. MAGINNIS. Well, I guess the point I'm trying to make is, as you come forward with your recommendations, unfortunately, at the national level, oftentimes all you can deal with—all you can work with—is a sledge hammer, because you are at a national level. And so I'm just suggesting that whatever your ultimate solution is, that it allow for the flexibility of the States.

And in addition to that I'm intrigued by the Pittman-Robertson program. I want to look into it more and see what sort of recommendations we come up with to you in the future. I don't know anything about it, so I'm not going to comment on it.

Another issue that you should certainly be paying attention to is upland control. And when you're looking at clean water and you're talking about taking care of the estuaries down there, remember that a lot of the pollution that you're going to fix can't be fixed in the coastal zone. It has come down the river and the folks in the coastal area are the victims of it.

Another issue that I think everyone of us around the table agrees with is that non-point source pollution is a major problem and it has to be addressed. You have a whole panoply of laws affecting activities in the coastal area. As Federal agencies we're always trying to negotiate among ourselves to reach an accommodation Coastal Zone Management, the Corps of Engineers' laws, EPA's laws. It's not clear to us which laws are premier and which laws should be obeyed before other laws are obeyed because they're conflicting.

Mr. STUDDS. Okay.

Mr. MAGINNIS. And so my final comment is, some clarification of that would be very helpful.

Mr. STUDDS. Okay.

If we can find any of them that the Administration supports that would be helpful too.

Let me say to you, one final question, Mr. Maginnis, I understand from press reports and otherwise that the Commerce Department's Inspector General is recommending a 50 percent reduction in the CZM staff. Is that correct?

Mr. MAGINNIS. Actually it's 42 from 70, so it's slightly higher than 50 percent, but close.

Mr. STUDDS. Higher than 50 percent?

Mr. MAGINNIS. Yeah, about 60 percent.

Mr. STUDDS. Can I assume you are as appalled as the rest of us by that, or do you think that's a lovely idea under the circumstances?

Mr. MAGINNIS. Well, I'm not appalled, only because, as you know, the Inspector Generals are independent bodies, and their recommendations are advisory.

There were some specific recommendations about who to cut and where to cut and that sort of thing. Three days after I arrived, I relieved the manager of that program. Soon afterward, I wrote our response to the Inspector General. I didn't make any comments regarding his specific recommendations. Most people that I talked to who read the report said that the fellow, the young man who came and did it, was fairly naive. This was one of his first examinations. He scored a few telling points, and those points should be responded to, just as a matter of good management. But overall, his report, I think, represents a lot more zeal than was necessary. That's my own sense.

Now, I've been here three weeks——

Mr. STUDDS. Not an unprecedented characteristic. [Laughter.]

Mr. MAGINNIS. Of an Inspector General, no.

Mr. STUDDS. No—well never mind.

Mr. MAGINNIS. I've been here only three weeks, so I didn't feel like it made good sense for me to try and respond intelligently to his accusations. What I did instead was to appointed an acting director, a man who has in the past not been captured by his programs, and who has credibility with a Masters in Public Administration and a Bachelors in Physics. I've required him to report to me once a week——

Mr. STUDDS. Okay.

I don't want to belabor it, I just——

Mr. MAGINNIS. Okay.

Generally speaking my response has been I will look at your proposals. I will put someone in there who can address them specifically, and I'll do what's right. I'm not going to respond specifically to his accusations.

Mr. STUDDS. Maybe you can reduce the Inspector General's staff.

I assume, Ms. Hanmer, that you would not be quite so—how do I put it? You would not welcome a reduction of over 50 percent in your staff, I assume? I mean, you don't think we've devoting too many resources for the problem at the moment?

Ms. HANMER. I quite agree.

Mr. MAGINNIS. And I agree with that, by the way. If this guy comes and tells me that we should add five people, then I'm going to do it.

Mr. STUDDS. Good luck.

Anybody else—we drifted away. I originally was asking you to focus, with some precision, on the core of message or messages you want to leave with the Subcommittee just in case we get called away from here.

Anybody else want to respond to that?

Ms. Hanmer?

Ms. HANMER. I really don't agree that our pollution control efforts under the Clean Water Act are either irrelevant or voluntary. I think if they were, we would be up to our noses in sewage and in unbelievable trouble.

However, it is undeniably true that our efforts have been inadequate so far to protect the coastal zone. And it remains to be seen whether or not the current program for non-point source management will work out. We're just getting the State plans now. I think we've got a long way to go, especially because of the State funding problems I mentioned earlier. They're quite serious. So, it's necessary, I think, whatever we do in the pollution control area, and I think we have the will to do it, and I think we've got a good statute, and all we need really is money at the State level for it, but whatever we do in addition to that we've got to go to the heart of the matter. And that is that everybody loves to move to the coastal zone, and if you were coming from Mars you'd look down and you'd say, gosh, there seems to be something going on here when everything is being subdivided into one-acre lots. And unless we go to the heart of the growth and the development in that particular area, and the impact that it's having on a natural resource base that can't support it, and unless we do something about our tendency in our society to generate more waste per capita than any other nation known to man, I think we will be completely unsuccessful in our pollution control efforts, and will not protect the coastal zone.

Mr. STUDDS. Let me ask you, while you have the mike there, we understand that EPA is drafting some sort of marine policy?

Ms. HANMER. Yes, we are.

Mr. STUDDS. What's the status of that, and can you tell us anything about it?

Ms. HANMER. We are very close to initiating interagency discussions on our marine policy, and also to making some internal directives to our programs. We're covering a very large number of areas, including beefing up our response in permitting and enforcement, accelerating our work to comply with the plastics laws, looking at a whole variety of areas. Clearly responding to the Congress' initiative to significantly tighten up on ocean dumping is part of it. But also dealing with, as we can, with all of these land-based sources of pollution.

Mr. STUDDS. How long have you been with the agency?

Ms. HANMER. I've been—I started in the Federal Water Pollution Control Administration in 1966, so I came into the agency from that perspective and have been there ever since.

Mr. STUDDS. Hang on.

Ms. HANMER. In a variety of programs.

Thank you.

Mr. STUDDS. A few more months.

Mr. Ross?

Mr. ROSS. In terms of what I would like to leave the committee with today, my point, I think, has been made. I might repeat it again on redirecting agencies to work in a planning context as well as regulation.

Coordination—don't have Federal agencies reinvent the wheel, but work in a partnership——

Mr. STUDDS. You can't tell them that.

Mr. ROSS. I beg your pardon?

Mr. STUDDS. You can't tell Federal agencies not to do that? [Laughter.]

Mr. ROSS. I think a program like the NEP, National Estuaries Program is going to—I'm assuming it is, and I see evidence that it is—build upon existing programs that are in effect in some States, refine those and move forward. I would urge that that coordination occur.

Standards. I think that if procedural standards aren't getting the job done under the Coastal Zone Management Act, and my colleague from Maryland, I think, would agree but she can speak for herself, then the States should expect that some substantive standards are going to come down the line. You can't gum to death inappropriate development. There have to be enforceable standards.

I disagree with my colleague to my right, that zoning can't work. It can work, but only if there are enforceable standards. And I think it is part of the answer to the problem, but not when there are only procedural standards against which the backdrop occurs.

Mr. STUDDS. Anyone else who hasn't had a shot at this so far?

Mr. Marsh?

Mr. MARSH. Yes, I agree that some kind of, what we might call a flexible sledge hammer approach, would be——

[Laughter.]

Mr. MARSH [continuing]. Effective. I think that there does need to be more beef in the CZMA to get us and our local governments to do more through the zoning powers.

I also agree that land acquisition must be beefed up at all levels. And I think that funding for the programs, because so much of what we do, what we can accomplish is dependent on enforcement. We cannot hold the tide, even with the best of laws, best of zoning approaches, on our wetlands, for example, without people to go out there and watch what's going on.

Mr. STUDDS. Beef is not within the jurisdiction of this committee. You're going to have to——

Mr. MARSH. There must be some other agricultural commodity for it.

Mr. STUDDS. Yes.

So you recommend the old FSA, the flexible sledge hammer approach? [Laughter.]

Mr. MARSH. That's right.

Mr. STUDDS. Dr. Taylor?

Ms. TAYLOR. I am going to speak for myself. First of all I don't think that the Federal laws have been irrelevant. After all, if it

hadn't have been for the Coastal Zone Management Act and other Federal laws in existence, I don't think you would have had the attention paid by the States with respect to the coastal resources, pure and simple.

As a matter of fact, in 1979 I started with Maryland's Coastal Zone Management Program, and I think one of my first duties was to attend a hearing in Atlantic City on the reauthorization, and you were there. And from that basic perspective I believe that a lot of effort has been made, except we need some changes and we need some more effort. And it's got to be on the land use side. I'm going to echo what everyone else has said, the acquisition, whether it be in fee or easement, or what-have-you, needs to be focused together and funneled with the Federal/State/Local government and private sector all involved.

And the third point that I want to raise is in agreement with my colleague from Oregon, I think zoning is a portion of what needs to be added. I do not agree with the gentleman from Louisiana in saying that zoning is not going to do it. I think it will give some leverage. We're experiencing that, at least with the Critical Area program and I think we cannot under-emphasize the role of the local government because that's where the decisions are made. And if we don't set up something it's very much like an orchestra. We have, you know, the local instruments and the State instruments, and the Federal instruments, and the private instruments, but if we don't have a conductor that has set a little marching tune, we're all going to sound a little discordant. And I think that may be what is happened, at least up to this point.

Thank you.

Mr. STUDDS. I like that metaphor. It has all kinds of potential. [Laughter.]

Mr. STUDDS. It's very tempting to elaborate on it. See, the current conductor has said he can't afford a baton, is part of the problem.

Mr. Houck, were you wanting to say something?

Mr. HOUCK. Would you allow me an additional thought on the water dependency test?

Mr. STUDDS. Certainly.

Mr. HOUCK. I'm delighted to see that slowly, and almost grudgingly, there seems to be a consensus that some sort of a substantive mandate in the CZMA is necessary. The one I proposed to you——

Mr. STUDDS. Easy for you to say.

Mr. HOUCK. Easy for me to say, tough for you to legislate. It's going to be even tougher then where I come from to implement.

But, without that standard the Coastal Zone Management Act truly is a waste of time. No matter how tough a standard, that is to say on the zoning level, because zoning can't win. No matter how strong a zoning law you have, and I think the (b)(1) guidelines under 404 are about as tough as you can imagine. We are seeing horrendous repeated daily 404(b) decisions, and 404 decisions that allow the reckless destruction of coastal resources. So even if you apply a dependency test, you're not going to win, you are simply going to have more leverage and buy more time. You're just going to lose more slowly. But losing more slowly is an important objective, given the fact that we're losing quickly.

So, that's why I come back to the water dependency test. And I come back to your question, which is really right on the money. Which is, what do we do about the private home development? And what I think on second consideration, is that what you do is you have two coastal zones. You have one which is the definition of the existing program, but you cannot, in effect, zone out all private development in that coastal zone. You have a second coastal zone, which is the critical area coastal zone, but it's defined under Federal criteria as so many feet from affected waterbodies, and such and such kind of development. You have Federal criteria for the establishment of those areas. In those areas you do indeed have a coastal dependency test. And that extends the 404(b)(1) guidelines to the beaches, and the dunes, and the ridgelines, and the rest of the stuff where it's critically important and can make a big difference.

And we then live with the more mealymouth kind of do it if you have to mandate for the more upland areas of the coastal zone behind. So, in effect, you have two operative mandates out there. One of the near coastal and one for the rest of the coast.

As for the adequacy of the existing mandate, let me leave you with this quote from the Secretary of the Department of Natural Resources in Louisiana interpreting our Coastal Zone Program in reading the Federal statute: "The Federal statute is not a directive to preserve wetlands areas. It is instead a management statute which practically precludes the Secretary from stopping any activity, per se, in the coastal zone." That's the way the statute is now read.

It's got to read differently or we're wasting our time.

Thank you.

Mr. STUDDS. You sure know how to cheer up the whole Subcommittee. [Laughter.]

Mr. STUDDS. You've also given me a theme for most of what we do around here, which I have written down and will never forget. And that is the overriding goal to continue to lose more slowly. [Laughter.]

Mr. STUDDS. That pretty much says it all, and not just this area.

I was thinking when Dr. Taylor mentioned our hearing in Atlantic City, that was in the course of the lengthy reauthorization process. In 1980 we held hearings in all the coastal zones, and all over the country. I think I upset Congressman Hughes by observing that I didn't think God intended that to happen on that particular barrier beach, what had happened in Atlantic City. I then upset other people by making the same observation about Miami Beach and a number of others.

But my recollection of the conclusions we drew after two long years of thinking about the Coastal Zone Management Act, was that in spite of all its verbiage, it really had three major accomplishments—it had three major things going for it. Number one—this was pre-current Administration—was money. It at least put money in the hands of States to try to do some things that needed to be done. Number two was the consistency provision, at least the intent of it. And theoretically it was the intention of the Congress that it gave the States a tool to compel the Federal government to behave itself, when it might otherwise not be inclined to do so. And number three, and perhaps the most important of all, and you re-

minded me of this, was the extent to which it had become an engine for public awareness. As we went around the Country we found time and time again, almost no matter where we were, no matter whom we were listening to, people saying the very existence of this Act and the creation of State programs, and even the debate about State programs pursuant to it, has lead to a level of public awareness and consciousness of the problems that had not existed before and might not have been had it not been for this.

That I thought was one of the great arguments for continuing the program regardless of the problems of any particular section of the statute which the lawyers got all excited about. And I think that it was.

I now think that we may be in a situation which is not unprecedented either, where once again the general public is ahead of those that purport to, if not lead them, at least represent them. And the kinds of things that I think you've all been talking about, in a microcosm on Cape Cod in my own constituency, as you very well may know, it's made national headlines in the last few months, a local debate over whether or not there should be at least a temporary moratorium on development, whether or not 15 towns that for three centuries have jealously guarded their independence and home rule, not only from the Federal government, but from the State government and from each other in this small county, ought to get together with genuine regional planning and genuine regional zoning and controls on development, where virtually every public official from the region dive under the nearest dune to avoid the debate, peeked out, and to their utter astonishment, found public opinion by all measures overwhelmingly in favor of that proposition. This hasn't emboldened many of them to change their mind, they're still under the dune, but it is an interesting phenomenon which I suspect may be duplicated around the country. That is to say that just plain people, as opposed to those who inhabit this City probably understand far better than we give them credit for understanding, (a) the general nature of the problem, and (b) the kinds of things that need to be done. That's not to say that each of us when our own particular—I can't say ox—cod is about to be gored—I don't know how you gore cods, but—sometimes your prospective changes if it's your property, or your community, or your business, or whatever it may be that is potentially affected by these things, obviously.

But in terms of the general public interest, I think there's a broad understanding, if not even a consensus, but certainly—and a willingness and an eagerness to have government act, at whatever level or levels are necessary. To convey that to people who have to do the acting, however, is the challenge. And those of you who are from around the country are going to have your hands full if not enlightening, at least emboldening those who represent your States and your communities to realize that it doesn't take an awesome amount of courage to do what people have been wishing you would do anyway for some time. That is more often than not the case around here on a variety of questions. And I think that it is here.

This is the final hearing in—I don't remember how many—a long comprehensive set of hearings throughout this session of the Congress looking towards a comprehensive set of recommendations

for the next Congress, and the next Administration on the broad question of coastal pollution. Obviously, if you're going to be remotely comprehensive, we're going to touch on jurisdictions that involve many other Committees of the Congress. Of all the things that are irrational in this world, the Congressional jurisdictional Committee structure has to be at the very top of anyone's list. Nothing in the real world divides itself the way we divide ourselves. It makes it more difficult to get things that are hard enough done anyway. But we will likely disregard those relatively small problems and make recommendations wherever they may fall in whose laps around here, and see if we can't stimulate thinking. I hope, regardless of who the next President is, and it's no secret, the nature of my hopes. But whoever it is, it's going to be somebody different, and I hope the whole philosophy can once again become genuinely conservative in the sense that the English language used to be spoken around here.

And so, I guess that's just a long-winded way of saying (a) thank you for contributing what you have to this last hearing, and (b) I hope you each individually will be available for consultation, public and private, as we develop the report, and hopefully get to work in the next Congress on a real change in attitude and direction, with perhaps a little more humility about the ability of the natural environment to withstand us.

And I would again urge you, if you haven't already, to read Calvin and Hobbes this morning, and every morning.

Thank you all very much, and the Committee stands adjourned.

[Whereupon, at 11:28 a.m., the subcommittees were adjourned, to reconvene at the call of the Chair.]

[The following was received for the record:]

STATEMENT BY THE HONORABLE ROBERT W. DAVIS (R.-MICH.) AT THE JOINT SUBCOMMITTEE HEARING ON COASTAL ZONE MANAGEMENT AND COASTAL POLLUTION: SEPTEMBER 28, 1988.

MR. CHAIRMAN, THIS HEARING IS PARTICULARLY TIMELY GIVEN THAT OUR COMMITTEE WILL BE REAUTHORIZING THE COASTAL ZONE MANAGEMENT ACT IN THE 101ST CONGRESS. THE TESTIMONY RECEIVED HERE MAY GIVE US NEW DIRECTIONS TO PURSUE IN IMPROVING THE ACT AND ITS GOALS. I AM PARTICULARLY INTERESTED IN HOW THE CZMA CAN BE USED TO PREVENT COASTAL EROSION AND FLOODING, A SERIOUS PROBLEM IN THE GREAT LAKES WHEN WATER LEVELS RISE.

MY HOME STATE OF MICHIGAN WAS ONE OF THE FIRST STATES TO HAVE ITS COASTAL ZONE MANAGEMENT PROGRAM APPROVED BY THE SECRETARY OF COMMERCE, AND IT HAS CONTINUED TO BE A LEADER IN PROTECTING COASTAL RESOURCES LIKE WETLANDS AND SAND DUNES. MICHIGAN IS THE ONLY STATE TO HAVE BEEN DELEGATED AUTHORITY UNDER SECTION 404 OF THE CLEAN WATER ACT TO REGULATE DREDGE AND FILL ACTIVITIES IN WETLANDS, AND MICHIGAN HAS BEEN GRANTED CONTROL OVER DISCHARGES INTO NAVIGABLE WATERS UNDER THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PROGRAM ALSO UNDER THE CLEAN WATER ACT.

MICHIGAN HAS USED ITS GRANT MONIES UNDER THE COASTAL ZONE MANAGEMENT ACT WISELY:

- o It has developed legislation now pending before the Michigan legislature which would control development on sand dunes in the State.

- o It has created the most sophisticated computer tracking systems for wetlands permits in the country.

- o The State averages over 35 projects a year for increased public access to the shoreline.

- o CZMA money has been used to aid local governments in preparing land use plans and model ordinances to manage coastal growth to avoid pollution and adverse impacts on coastal resources.

- o The State has implemented a detailed data system available to coastal managers and residents on fluctuating water levels and coastal hazard areas in which to eschew development.

These projects demonstrate Michigan's role as a guardian of the Great Lakes, which contain 95 percent of the U.S. freshwater supply. While only four of the seven Great Lakes states have coastal zone management plans, Michigan is working with them to preserve the Lakes for drinking, fishing, and recreation. The other coastal states would be well advised to look to Michigan for guidance.

REGARDING THE GREAT LAKES AND THE COASTAL BARRIER RESOURCES SYSTEM, THIS CONGRESS IS ON THE VERGE OF DIRECTING THE DEPARTMENT OF THE INTERIOR TO EXAMINE THE GREAT LAKES AND RECOMMEND ELIGIBLE AREAS FOR INCLUSION IN THIS SYSTEM. I WAS THE AUTHOR OF THE HOUSE BILL ON THIS SUBJECT, AND CERTAINLY WELCOME THIS METHOD OF DETERRING INAPPROPRIATE AND RISKY DEVELOPMENT IN FRAGILE COASTAL AREAS.

I WELCOME OUR PANELS AND LOOK FORWARD TO THEIR OBSERVATIONS AND SUGGESTIONS.

# # # # # #

RWD:LPM

STATEMENT
OF
THOMAS J. MAGINNIS
ASSISTANT ADMINISTRATOR FOR OCEAN SERVICES AND
COASTAL ZONE MANAGEMENT
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

BEFORE THE

SUBCOMMITTEE ON FISHERIES AND WILDLIFE
CONSERVATION AND THE ENVIRONMENT
AND
SUBCOMMITTEE ON OCEANOGRAPHY
COMMITTEE ON MERCHANT MARINE AND FISHERIES

HOUSE OF REPRESENTATIVES

SEPTEMBER 28, 1988

Mr. Chairman and Members of the Subcommittees:

I am Thomas J. Maginnis, Assistant Administrator for Ocean Services and Coastal Zone Management, National Oceanic and Atmospheric Administration (NOAA), and I am pleased to appear before you this morning to discuss coastal pollution and coastal resource protection.

I understand the purpose of this hearing is twofold: first, to examine whether the Coastal Zone Management Act (CZMA) has fulfilled its proper role in providing for the long-term conservation of coastal areas, and to examine methods to strengthen the performance of the CZMA. Secondly, to examine the interplay between CZM programs, Federal water quality programs and their State and local counterparts, and the long-term population and growth pressures that pose so serious a threat to the environmental integrity of coastal areas.

Background

The coastline of the United States extends over 95,000 miles bordering three oceans and five Great Lakes. Coastal climates range from tropical to arctic; coastal shorelines vary, including rock, sand, erodible clay bluffs and marshes. Over 52 percent of the U.S. population lives within 50 miles of the coast*. Many major cities, and most heavy industry, are located in coastal areas.

In the late 1960's, the people of the United States recognized that coastal resources were being severely stressed by competing and often conflicting uses. Without proper management, many coastal resources soon would be lost, and significant water dependent industrial and port sites would become obsolete or need redevelopment.

The Coastal Zone Management Act (CZMA) establishes a national coastal resource management framework to address these concerns. The CZMA encourages and assists States and territories in response to increasing demands for the use of coastal areas. The Act was intended to assist States in developing the capability to manage their coastal resources. NOAA was to provide financial and technical assistance and policy guidance to States and territorial governments to prepare and implement programs which balance the

---

*1987 Bureau of the Census Report

use and conservation of coastal and ocean resources. Twenty-nine coastal States and territories covering 94 percent of the coastline now have Federally-approved coastal management programs. The Federal Government has invested over $500 million in these State programs over the past 13 years, $293 million of which was spent on Section 306 grants. Because the national objective has been met, Federally-funded CZM grants are proposed by this Administration to be phased out.

I would now like to address the specific questions raised in your letter of invitation. I will respond to the questions regarding recommendations at the conclusion of my testimony.

- How effective has the CZMA proven in protecting coastal environmental quality?

Sixteen years after its enactment, the CZMA remains the only legislation which requires a comprehensive cooperative approach to the management of coastal resources. Though the CZMA is not a panacea, it does provide a broad structure in which State and local governments can address comprehensively their specific problems within a national program.

Following passage of the CZMA, coastal States created new organizational relationships, new institutions, and new laws; and revised existing laws and guidance.

The beneficial impacts of Federal funding provided through the CZMA on State programs to manage coastal resources are many and

varied. The economic health of some of our coastal communities has improved as States redeveloped deteriorating urban waterfronts and ports. Low-cost construction projects such as boardwalks, dune walkovers, boat ramps, etc., have provided the public greater access to the coast while protecting wetlands, dunes, and other important habitats. These activities, however, would be more appropriately funded by the States who are the project-specific beneficiaries. States have also established better land use and other regulatory mechanisms to guide coastal development away from high risk and sensitive areas. Streamlining the permit process has also helped make decision-making more predictable and timely. From the Federal standpoint, the CZMA's consistency procedures have required greater intergovernmental coordination and consultation among Federal and State governments.

There are many achievements in the national policy areas related to environmental quality under Section 303 of the CZMA.

WETLANDS AND HABITAT PROTECTION

Many States enacted new resource protection laws during the period of program development. More specifically, each State has established authorities to manage wetlands. While developing its program, Louisiana passed a new comprehensive act to regulate uses in its wetlands.

Beyond the creation of permit programs, most States have used CZM funds to improve implementation of wetlands protection laws

resulting in better management and cost savings to communities as well as applicants.

During fiscal years 1987 and 1988, Massachusetts used CZM funds for two enforcement officers at the Department of Environmental Quality, which resulted in the highest number of investigations ever completed: 175 complaints and 84 enforcement actions with fines totalling over $330,785.

States have acquired important wetlands for habitat protection and management. Whether the acquisitions have been direct purchases or the result of mitigation agreements, many States' Coastal Management Programs (CMPs) have been responsible for the identification and subsequent management of the acquired parcels. For example, California has acquired the 2,070 acres of Rush Ranch with Federal 306A funds. This open tidal marsh and associated uplands is part of the Suisun Marsh, the largest remaining wetland around San Francisco Bay.

New Jersey's Coastal Management Program sponsored the acquisition of a critical area of shoreline on the Delaware Bay - an 18-mile stretch of beaches, dunes and marshes used as a stopover location by many species of migratory shorebirds in the spring. This "arrangement" was the result of an out-of-kind mitigation agreement with a State utility company seeking a wetland permit. Money obtained from future mitigation agreements of this type will be used to protect, manage and in some cases, acquire other critical shorebird habitats along the Delaware Bay.

6

State CMPs have also increased and improved the quality of public information and education concerning coastal resources, specifically the value of wetlands and habitat. All of the approved States have made efforts to improve both the applicant's and the general public's understanding of the benefits of wetlands as habitat, buffer, water quality filter systems, etc.. Their efforts have included development of construction guidebooks, school curriculums, interpretive centers, slide shows, etc. For example, the Washington Department of Ecology developed an excellent wetlands curriculum video, slide show and booklet for school grades 4 through 7.

Connecticut, Massachusetts and the Virgin Islands have prepared widely praised developers handbooks which explain why and how activities are regulated, and how to carry out a project with the least adverse impacts.

Finally, States have used planning and land use controls to ensure that development is sited properly with the least adverse impacts. For example, Maryland and Virginia used CZM funds to address a priority resource issue of water quality in the Chesapeake Bay. Maryland established the Chesapeake Bay Critical Areas Commission and, more recently, Virginia passed the Chesapeake Bay Preservation Act, which requires local governments to develop comprehensive plans and ordinances to protect the water quality of the Bay.

7

Oregon Statewide Planning Goal 14 (Urbanization) requires that each city in the State adopt an urban growth boundary that designates the outer limits of development for the next 15-20 years. General conservation of areas outside this boundary has also been established. A city may revise its urban growth boundary at any time through a request to the Oregon Department of Land Conservation and Development. Similarly, Oregon Statewide Planning Goal 11 (Public Facilities and Services) requires that each city in the State adopt a general plan for public services and facilities that contains some detailed requirements for transportation, water use and sewage.

In addition, the National Estuarine Reserve Research System (NERRS), authorized under Section 315 of the CZMA, has taken a direct role in protecting and improving the estuarine environment with the establishment of a 17-site State/Federal system of reserves in fifteen States protecting over 300,000 acres of estuarine land and water. Additional reserves are being developed in Delaware, New Hampshire and Virginia. The applied research by the reserve program addresses issues of coastal management importance such as the decline of eelgrass and methods for restoration and the effects of road construction and increased urbanization on estuarine resources.

BEACHES AND DUNES

Coastal barriers, beaches and dunes are significant recreational assets which provide valuable wildlife habitat while

protecting estuarine wetlands systems and development from ocean storm events. The significance of these areas is reflected in the extent of State and local CMP permitting and land use controls which have been brought to bear on these resources. All approved State CMPs have authorities over erosion control structures in the water. More significantly many CMPs use land use controls such as setbacks and building codes at the State or local level to reduce development in high risk erosion areas, adverse impacts on the beaches and dune system, and landside impacts of development. As examples of beach erosion control, North Carolina, Florida and more recently South Carolina developed setback standards and regulations for new oceanfront development based on annual erosion rates rather than a fixed distance from shoreline. In the case of North Carolina, the rules require that proposed oceanfront construction be set back a minimum distance from the shoreline based on beach erosion rates and the type of construction proposed. Structures with more than four dwelling units, for example, must be located away from beaches at a distance more than 60 times the annual erosion rate. The South Carolina CZM land and beach setback legislation in 1988 established setbacks and a 40 year retreat policy for the shoreline.

At the same time, States have used section 306A funds to build low cost structures, such as dune walkovers and wetland boardwalks, so that the public can use and enjoy the shorefront without resource damage. States have also used section 306A funds and other means for dune and seagrass seedings and to build snowfences

to enhance or restore valuable dune resources. In a one-time provision under Section 306 of the CZMA, $2 million was provided to New Jersey to assist municipalities in the restoration, repair and enhancement of dunes that experienced severe storm damage in 1984. Under technical guidance from the State, a dune restoration project in the Town of Lavallette was begun which ended the practice of bulldozing the beach in front of the walkway. When Hurricane Gloria struck the coast of New Jersey in 1985, the year-old restored dunes were successful in preventing damage to the walkway from surging wave action. (Only 12 miles to the north in the town of Point Pleasant Beach, where dunes had not been built, a boardwalk was destroyed).

COORDINATION AND PERMIT STREAMLINING

By fostering intergovernmental coordination and simplifying permitting, State coastal programs have provided more predictability and efficiency in their management of coastal resources. Coordination required by State CMPs has resulted in a more comprehensive and systematic identification of issues, data collection, regulation and management of coastal resources.

The States have examined issues and problems through their planning processes. During the development of the CMPs the views of the public and other agencies were solicited and considered. During implementation, this consultation process has continued and been reinforced through a number of mechanisms.

10

Most of the States have established joint notice procedures between the State permit program and the Section 404 and Section 10 permitting programs administered by the U.S. Army Corps of Engineers. A number of States have established joint permit processes in which Federal and State (and sometimes local) regulatory and commenting agencies meet together to process permits. This has been very successful in streamlining the permit process and providing for coordinated responses. It has also served to educate the varying agencies about each others programs, their areas of expertise and priorities. Generally, better and more comprehensive decisions concerning uses and activities have been provided more quickly through this type of activity. For example, in Pennsylvania, the CMP has set up the Urban Waterfront Action Group (UWAG) which is composed of representatives of all Federal, State, regional and local planning and regulatory agencies. The UWAG meets informally with applicants to review proposals. They provide helpful comments and make clear their agency's position under the law. This coordination prior to submission of a formal application, has streamlined the actual permit process and provided increased predictability.

Many States' coastal wetlands programs have obtained the necessary maturity to take the lead in protecting these valuable coastal resources. In some cases, with the agreement of the Environmental Protection Agency (EPA), NOAA's National Marine Fisheries Service (NMFS), and the Department of Interior's Fish and Wildlife Service (FWS), the Corps has delegated certain Section 404

permitting responsibilities in the coastal area to State coastal management programs. This has been accomplished by the use of general permits. Since 1981, the North Carolina coastal program has taken over the bulk of wetland permit reviews under a general permit issued by the Corps. Under this agreement, the State CMP is responsible for all field inspections and development of a package reviewed by relevant State and Federal agencies. Unless one of the Federal agencies objects to the proposal based on national interest concerns, the CMP develops the State permit and the Federal general permit is granted. In cases where a Federal agency objects, the project is subject to the full Federal permit process, as well as that of the State. This process has worked extremely well with over 95 percent of all permits in the North Carolina control area being handled under the general permit.

EMERGING ISSUES

The Federal Office of Ocean and Coastal Resource Management (OCRM) has worked with the States to ensure that the CMPs are dynamic and continue to address issues affecting their specific coastal resources. OCRM uses the significant improvement provisions of Section 306 to ensure up-to-date CMPs. Significant actions taken by States include seeking improvements to coastal water quality, addressing growth issues, and solid and toxic waste disposal. These issues were not recognized by Congress when it enacted the CZMA in 1972, but have emerged and escalated in importance over the last 16 years.

12

For example, several States have exceeded explicit CZMA requirements and begun to address coastal water pollution directly as part of their coastal planning and regulatory functions.

-- The Washington Department of Ecology (DOE) is continuing a long-term study of the effects of using wetlands for stormwater detention and retention, especially in urban areas. The effects of abnormal fluctuations, volumes, velocities, and industrial pollutants on various kinds of freshwater wetlands including swamps, marshes, and bogs will be investigated.

-- Massachusetts CZM studies have identified stormwater runoff as a significant cause of water quality problems which have resulted in the closure of major shellfish beds in the Commonwealth. In an effort to address stormwater run-off, the State has recently appropriated $500,000 to retrofit existing stormwater drains to improve water quality ultimately leading to reopened shellfish beds.

-- South Carolina has used Federal funds to support applied research in the areas of water quality data collection, updates of the Clean Water Act section 208 plans, and a review of various stormwater management techniques. The results of these efforts have been incorporated into the State's management program in the form of stormwater regulations and a model ordinance. The coastal program has also developed detailed regulations

to guide the siting and operation of marinas, many of which are aimed at reducing the adverse impact of day-to-day operations.

Where appropriate, several State CMP's have used land use planning and public capital expenditures to control growth. Their goal has been the orderly and controlled development of coastal resources based on the suitability and capability of a particular area.

-- Our most recently approved Coastal Management Program segment, New Hampshire, is using control of State and Federal expenditures for infrastructure to implement its policy of preserving the rural quality of the Great Bay. By not encouraging development through the subsidy of sewers, water and roads, the State will use the coastal management program to protect this valuable natural area and its water quality.

-- In California, the Bay Conservation Development Commission (BCDC) recently amended its "houseboat" and "live-aboard" regulations. In regulating the use and siting of houseboats and live-aboard boats in San Francisco Bay, BCDC controls the level of surface water use, controls pollution from the vessels, and manages adverse impacts on water quality, seagrass beds, and bottom flora and fauna.

14

- To what extent have direct ties between water quality and coastal zone programs already been established? How well do the programs work together? As the National Estuaries Program under EPA assumes a greater role in developing long-term plans for our nation's major estuaries, what role remains for the CZMA in these efforts?

NOAA and EPA have recently signed an agreement to coordinate the development of Comprehensive Conservation Management Plans (CCMP) under the National Estuarine Program (NEP) with the appropriate State CMPs. The agreement explicitly recognizes that the work done under the NEP represents a part of the whole coastal zone management effort. The NEP is a demonstration effort covering 12 of the 82 estuaries identified by NOAA's National Estuarine Inventory. The experiences of the NEP can be used to foster among the States important estuary management improvements in the remaining estuaries. In many cases CCMPs will need to be implemented through existing coastal management land use planning and regulatory programs already in place.

At the NOAA level, OCRM works closely with the NMFS habitat conservation program staff on an informal but regular basis.

The CZMA provides a comprehensive mechanism to promote the management and control by States of the alteration of coastal land and water resources. In passing the CZMA, Congress sought to minimize the overlap and conflict between CZMA and the Clean Water Act. The CZMA requires States to incorporate the water quality standards developed pursuant to the Clean Water Act into their programs, while specifically requiring States to protect "fish and

wildlife and their habitat, within the coastal zone." (Section 303(2)(A)). Also, the Federal consistency provisions in the CZMA which require coordination and consultation to ensure that Federal activities, Federal licenses and permits and Federal financial assistance to State and local governments that affect the coastal zone are consistent with the enforceable policies in the approved State CMP's. Under those provisions States review, for example, all applicable Federal Section 404 and NPDES permits for consistency with these enforceable policies.

At the same time, State CMP's have been responsible for and/or participated in institutional arrangements or activities with other Federal agencies (NOAA, FWS, EPA, COE, etc.) and State agencies which address water quality, natural resources, and wildlife and fisheries issues. These activities range from the provision of joint notice for permits to programmatic general permits as discussed previously. These activities have improved decision-making both substantively and procedurally by integrating reviews previously based on single purpose mandates.

- What impact has the current division of responsibility for protection of coastal resource among several Federal departments and agencies had on our ability to provide that protection?

Division of responsibility for coastal resource management among various Federal and State agencies has created some conflict and overlap. There has been some duplication of effort and competition for scarce financial resources. However, division of

responsibility has also provided a safety net to ensure that no coastal resource becomes threatened by one agency's single purpose program or mandate. Coordination can result in the important sharing of expertise, resources, and data, and provide for a more comprehensive and cost effective approach to the protection of coastal resources.

Historically, Congress has created two types of programs: single focused regulatory programs (water and air quality) and single resource management programs (forestry, fisheries and wildlife management). The CZMA provides for a comprehensive program that is not only concerned with regulating a broad area of activities, but also with systematically managing coastal resources. Significant is the fact that in the program, management and regulations are implemented by State and local governments, not by a Federal agency. At the same time, the Federal consistency provisions created a strong coordinative mechanism to ensure that Federal agencies actions directly affecting the coast are consistent with State enforceable CZM policies.

What presently exists is a set of goals which are both reactive (regulatory) and proactive (research, planning and management). Single purpose programs have been developed in many Federal and State agencies. However, these conflicts can often be reduced by coordinated planning and decisionmaking. The framework for this type of coordination exists in the CZMA at the State level through the structure of the CMP's.

- How might living resource considerations and habitat considerations -- which have traditionally taken a secondary position to physical water quality parameters -- assume a greater prominence?

A number of actions can be taken to broaden regulatory perspective of most existing programs under the Clean Water Act and other laws. Congress can choose to establish an explicit policy or goal requiring the consideration of habitat and living resources in all coastal decisionmaking, and mandate coordination between relevant Federal and State CZM agencies. In lieu of legislation, regulatory and resource management programs could be more aggressively coordinated through formal task forces or informally through strong agency leadership. In all of these recommendations, good resource management depends on bringing together broad policy considerations with specific expertise. Joint research, planning and monitoring and enforcement can be undertaken and costs shared among the various agencies.

NOAA has already taken steps in this direction. The Administrators of NOAA and EPA have signed an agreement for coordinating the Coastal Management Program with the National Estuarine Program and have opened discussions in the areas of ocean dumping and non-point source pollution.

- Given that Federal, state and local efforts appear insufficient to reverse the decline in coastal resources and environmental quality, what should we do? How should the Federal effort be modified to improve its overall performance, and what can be done with state and local authorities and with the private sector to improve the outlook?

18

NOAA has determined that there is a need to better coordinate its planning, research and management functions related to coastal and ocean resources. As a result the coastal ocean initiative has been created within NOAA with a priority focus on environmental quality. As part of this initiative OCRM will develop a closer relationship with NMFS to reflect better State needs in NOAA research. This initiative will enhance CZM's ability to handle its responsibilities related to coastal resource management.

No effort at any level will be successful without leadership, commitment and education. Cooperation and coordination of the many programs and authorities at the Federal, State and local levels is essential.

Ultimately, Federal, State and local agencies must become more creative in seeking to identify the sources and causes of problems. We must do more than regulate the people and industries which cause problems, we must seek to avoid or reduce the activities which cause the problem. Let's not wait to deal with pollution after it is generated. We should be looking for innovative ways to reduce the amount of pollutants entering the system. Public attention must be gained and educational efforts improved so that the American people more fully comprehend the causes and effects of coastal pollution. This is particularly critical in the area of solid waste, such as plastics, which often end up in the marine environment and which all too frequently originate with an unaware public.

- Are legislative changes necessary to strengthen existing links and to create new ones? Should the CZMA reflect stronger substantive goals rather than relying largely on the procedural elements of the current program? Should changes be made to improve the contribution of the coastal zone management program to protecting water quality or managing coastal growth?

As I have pointed out, because this program has completed its goal of establishing an effective infrastructure to allow States to effectively manage their coastal waters, the Administration's position is that the Section 306 and 306A Program Administration Grants should be terminated. Since its inception in 1972 over $300 million has been spent to develop the State infrastructure which is now capable of managing these coastal resources. NOAA would retain responsibility for monitoring and coordinating State programs to ensure consistency with national coastal policy.

Mr. Chairman, that concludes my prepared statement. I will be happy to answer any questions members of the Subcommittees may have.

STATEMENT OF
REBECCA HANMER
ACTING ASSISTANT ADMINISTRATOR FOR WATER
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION
AND THE ENVIRONMENT
OF THE
COMMITTEE ON MERCHANT MARINE AND FISHERIES,
U.S. HOUSE OF REPRESENTATIVES

September 28, 1988

Good morning. I am Rebecca Hanmer, Acting Assistant Administrator for Water in the U.S. Environmental Protection Agency. It is my pleasure to testify at your final hearing on coastal pollution, and to share with you EPA's perspective on where we go from here. I want to commend your leadership, Chairman Studds, and the commitment of this Committee, in conducting a thorough review of the critical issues in our coastal waters.

Our estuaries and coastal waters are national treasures which are severely threatened by a myriad of pressures - not the least of which is ourselves. Over the past twenty years, our society has invested considerable human and financial resources to stem the tide of pollution into our estuarine and marine waters. We have made advances under the Construction Grants program to decrease conventional pollutant loadings from point sources with secondary treatment plants coming on line along our rivers, estuaries, and coastline. In concert with that, the pretreatment program is maturing and is addressing the toxic contribution from industrial sources. A major program

targeting near coastal waters has been established and is now in its second year.

However, throughout this series of hearings, witnesses have raised the alarming spectre of continued degradation in our estuarine and coastal waters, loss of wetlands, and rapidly declining fisheries. While significant progress has been achieved in controlling pollution from point sources, nonpoint source pollution, solid waste disposal, and explosive growth and development in the coastal zone continue to be major obstacles to attaining a clean and healthy environment. With the majority of our nation's population living within an hour's drive of the coastline including the Great Lakes, the pressing nature of these problems is considerable. Similarly, floating debris and medical waste that fouled our beaches this summer only serve to further illustrate the problems along our nation's coastline.

The challenge before us is to turn this sad story around and move beyond "holding the line" to the recovery and enhancement of our coastal waters and habitats. The task is enormous but worthy of our dedication and long-term commitment. Historically, our nation has enjoyed an abundance of natural resources, and, far too often, we have taken them for granted. But, these resources are finite. Our society is at a crossroads: can we learn to live with our environment rather than at its expense? How can we better integrate our resources and

90-797 O - 88 - 3

regulatory authorities to take into account the overlapping impact of different media? Can we as a Nation harness the creative and driving energy of our free enterprise system to work towards ensuring the quality of our waters and the survival of precious coastal habitats?

We have little choice but to confront head-on the difficult choices that lie ahead. Our comprehension of the complexity and the dynamic nature of the coastal environment has evolved in tandem with the increasing sophistication of scientific research and information. The boundaries of the coastal environment are far reaching and coastal waters receive a multitude of inputs from the atmosphere as well as the land. A broader view of the coastal zone is essential in order to provide the necessary protection for the waters. In particular, we must consider impacts of activities throughout an entire watershed and the pollutant and nutrient inputs into the streams and rivers feeding into estuarine and near coastal waters. For example, inland and coastal wetlands should not be decoupled and managed as separate entities. The loss of freshwater wetlands throughout the watershed area can contribute to increased sedimentation and pollutant and nutrient loading in the coastal waters downstream.

Mr. Chairman, a forceful, coherent national environmental ethic must be clearly articulated throughout the country if effective action is to be taken. Our attention needs to be directed landward towards the sources of the pollution and

degradation to our coastal waters: our industries and farms, our homes, and our roads. In other words, ourselves.

Today, I would like to discuss what further needs to be done. Our first order of business is to look at the two principal statutes governing the coastal area, EPA's Clean Water Act (CWA) and NOAA's Coastal Zone Management Act (CZMA), to see how they might do a better job of protecting coastal resources by joining forces under their existing statutory and regulatory authorities. In fact, while both programs share the same piece of real estate, each law was carefully crafted to avoid stepping on the toes of the other.

The common denominator between the two statutes is water. The Clean Water Act deals with the chemical, physical, and biological integrity of the nation's waters; the Coastal Zone Management Act deals with land and water activities that have effects on the coastal waters. From our perspective, one of the greatest strengths of the CZMA is its clear directive to the States to work with local governments to impose land use controls. States accepting the challenge have been working for years now to build the institutions and coalitions necessary to get State and local controls in place. But, many States, by defining the coastal zone too narrowly, have not placed adequate emphasis on water quality and aquatic habitat protection particularly in relationship to upstream/uplands impacts.

From EPA's perspective, of course, water quality is the name of the game. The 1987 Amendments to the CWA will aid our efforts and those of the States in protecting and enhancing water quality in the nation's near coastal waters. Nonpoint source pollution is the biggest contributor to the degradation of our near coastal waters. The Amendments created a new nonpoint source management program giving the States the lead in developing and implementing State Management Programs to prevent and control nonpoint source pollution. The Amendments clearly do not envision a Federal regulatory program comparable to the point source permitting program. Rather, since nonpoint source pollution is most often the direct result of past and present land use practices, and, since land use falls within the purview of states and local governments, the law places the responsibility squarely on the shoulders of States and local governments to exercise their land use authorities. In this respect, the new NPS provision is very similar to the basic tenets of the CZMA, although it does not explicitly direct states to use land use controls to protect water quality.

Another new provision established the National Estuary Program a nationwide demonstration program that targets selected estuaries of national significance. While the CZM program allows the states to define the landward limits of their coastal zones, the national estuary program promotes basin-wide planning to control pollution and to manage living resources. The estuaries selected to participate in the program

are what I refer to as the crown jewels in the diamond necklace that surrounds this nation on three sides. As with the nonpoint source provisions of the law, this program has few direct regulatory authorities and relies extensively on grass roots support, on consensus building, and on the imposition of State and/or local regulatory controls where necessary to protect the estuary. One of the strengths of the estuary program is that all parties responsible for implementation of the final product, the Comprehensive Conservation and Management Plans, will be involved in their development and final approval.

Under the CZMA, Federally permitted activities that will affect the coastal zone are reviewed before the permit is issued by the appropriate State agencies for consistency with State Coastal Management Plans. The permit reviews conducted by the State coastal agencies in many cases are very thorough. However, the quality of the reviews varys depending in part on the make-up of the State agency(s) responsible for administering the program. Certain activities that may cause discharges into marine waters, for example, offshore oil and gas operations, have been highly controversial and have received a great deal of attention from State coastal agencies. Discharges on the shore or upland discharges may have greater impacts on coastal waters than marine activities. Onshore and upland activities should receive commensurate attention from coastal management agencies.

There are other statutory tools available to EPA under the CWA and to the States under the CZMA that can reinforce achievement of mutual goals. The construction of a wastewater collection system in West Ocean City, Maryland, serves as an example. West Ocean City had suffered for many years from water pollution caused by failing septic systems. To address this water quality and public health problem, the County Sanitary Commission sought construction grant funds from EPA to build a sewer system. EPA determined that the proposed system would induce significant development in the 100-year floodplain and in some wetland areas, which would cause increased runoff of pollutants into adjacent bays and contribute further to the area's water quality problem. With the full support of the State's coastal agency responsible for implementation of the CZMA, the grant was awarded with a condition limiting access to the sewer system in the floodplain and prohibiting access in wetlands. This shows that under Title II of the CWA, EPA has the authority not only to make grants to States and local governments for construction of treatment facilities but also to restrict use of those facilities where necessary to further the Act's water quality goals.

Finally, the centerpiece for all these programs is the State water quality standards program. As we have testified previously before your Subcommittee, Mr. Chairman, water quality standards are an important basis for regulating point sources under the Federal CWA. The adoption of these standards is

primarily the responsibility of the States. Water quality standards, besides forming the basis for point source control requirements, also set goals and benchmarks for evaluating progress towards full protection of water quality from the impacts of point and nonpoint sources.

Water quality standards can and should be the mechanism that pulls all the other pieces together. In order to make the fullest use of these standards as a tool to protect coastal resources, we need to strengthen our water quality criteria, permitting process and monitoring protocols for estuaries, near coastal waters, and wetlands, and to support the nonpoint source program. Also, we should increase our monitoring efforts to study the waterbody as a whole. EPA can help by encouraging development of appropriate criteria, standards, and monitoring protocols so that States can use these tools to better protect coastal water quality.

While EPA has traditionally focused its attention and resources on restoration of damaged coastal resources, this "after the fact" approach has been very costly and time consuming. Instead, statutory tools available to EPA and other Federal agencies as well as the States can be used to prevent degradation and to protect coastal resources by coordinating with and supporting a State's antidegradation policies and coastal zone management programs.

In addition to strengthening the statutory coordination between the CWA and the CZMA, EPA and NOAA have recently developed a Memorandum of Agreement (MOA) to better integrate the National Estuary and Coastal Zone Management Programs. Both programs have distinct but complementary tools that can be used to reinforce and strengthen actions at all levels of government. For example, EPA has agreed, as a matter of policy, to submit Comprehensive Conservation and Management Plans (CCMP) to affected States for Section 307(c)(1) consistency review by the State coastal management agency. In turn, states will be required, to the extent permitted by law, to incorporate the management plan as part of the Federally approved State coastal management program. We view the MOA as a first step towards better coordination of these programs among our two Agencies as well as with the States and organizations like the Coastal States Organization.

EPA is moving on several fronts to address the many critical problems impinging on our coastal waters and to support local and state governments in implementing programs to protect the coastal zone.

First, EPA launched a major strategy targeting near coastal waters last year. We are now expanding and coordinating the strategy throughout the Agency, and supporting the development of Regional programs. The Near Coastal Waters Strategy is EPA's most recent step in coastal waterbody management. It will have a broad scope in terms of both the physical definition

of the waters to be protected and the levels of management effort considered. The strategy will: build on the lessons learned through the National Estuary Program and other EPA coastal management programs, such as the Chesapeake Bay Program and the Great Lakes Program; develop new techniques; and provide greater flexibility for States to tailor protection efforts to the needs of their coastal waters.

EPA is also working to strengthen protection of critical aquatic habitats. In response to the increasing rate of loss and destruction of wetlands in this country, EPA initiated the National Wetlands Policy Forum to develop sound, broadly supported recommendations on how to improve wetlands protection and management. EPA provided some start-up funding with additional support coming from several foundations. The Forum, chaired by Governor Kean of New Jersey, began meeting in July, 1987 and had its final working meeting this past July. The final report will be issued this November.

The Forum has explored some major issues and developed several recommendations including: a unified goal for the nation's wetlands resources, revisions to existing regulatory programs to help make them more effective and efficient, identification of gaps in protection in existing regulatory programs, nonregulatory approaches to protect wetlands, mitigation policies and practices, and government activities and programs which induce direct or indirect wetland alteration.

Another EPA Wetlands protection goal is to promote no net loss of wetlands in the short-term and to protect our nation's wetlands inventory. For example, EPA is targeting the use of the Advance Identification program to highlight wetland resources that are particularly vulnerable or of special value. This program could be extended by linking with State and local planning efforts to manage and protect their wetlands. In conjunction with these efforts, and in support of State management strategies, EPA plans to work with states to revise their water quality standards to reflect special consideration for wetlands and develop appropriate wetland criteria.

Under the CWA the States have authority to approve or disapprove the Army Corps of Engineers wetlands permits. The Agency is also encouraging States to make greater use of the CWA's water quality certification process to protect their coastal wetlands. EPA has prepared a draft handbook explaining how to make water quality certification more applicable to wetlands. The final handbook will be published by early next year.

Finally, we are working with other Federal agencies and the states to provide more effective protection of coastal wetlands. Beginning in FY 1985, as part of an overall Agency effort to increase the effectiveness of Section 404, EPA has placed increasing priority on strengthening the 404 enforcement program. And, in an effort to better utilize the resources of both

Agencies, EPA and the Corps are developing a Memorandum of Agreement on enforcement.

With respect to toxic pollutant point source discharges, EPA is expanding its program. Guidance documents to address pollutants, marine and estuarine permitting, and toxicity reduction evaluations are under development.

In addition, as a result of the 1987 Amendments to the Clean Water Act, national attention is being focused on identifying all impaired waters and addressing known water quality problems due to toxic pollutant discharges, including those to coastal waters. In particular, individual control strategies are now required for all point source discharges of toxic pollutants which are causing non-attainment of water quality standards.

Another Agency action I would mention, Mr. Chairman, is the effort to promulgate stormwater and sludge management regulations and to implement the recommendations of the Domestic Sewage Study. EPA's strategy to control combined sewer overflow discharges is nearing completion and should soon be released. We expect that the stormwater regulations will be proposed sometime this Fall. The final State Sludge Management Regulations are being drafted and we expect them to be promulgated in the Spring of 1989. Proposed regulations for implementation of recommendations of the Domestic Sewage Study (which addresses legal discharges of RCRA hazardous waste to sewers) are under

review, and, as soon as the review is complete, the rule will be proposed.

One final effort being undertaken by the Agency is our national strategy to minimize waste. In testimony before the House Committee on Energy and Commerce last spring, our former Deputy Administrator Jim Barnes described the task before us as an effort that will entail a change in the national ethic and will require the involvement of the Federal government, city and State governments, private citizens, and the private business sector. As Jim said, and I agree, the changes that are necessary will take place because the alternatives in the long run are simply too expensive.

Cleaning up our near coastal waters and protecting our coastal resources will be not be easy or inexpensive. The Federal government must actively support State and local efforts in developing new and innovative financing mechanisms. For example, EPA and the Department of Justice have recently worked with the Commonwealth Massachusetts to establish the Boston Harbor - Massachusetts Bay Trust Fund to support a state program modeled after the National Estuary Program. The Trust Fund is authorized to accept moneys from penalties assessed under the CWA as well as other fees, gifts, and federal funds. EPA has also prepared two manuals to provide decision-makers at the state and local level with information on alternative financing methods.

If we are serious about protecting coastal resources we must discourage development in sensitive areas and encourage conservation-oriented land management practices. A broad awareness of the benefits of our coastal resources is central to the evolution of governmental involvement and environmental protection determinations which must be made at the outset. While we strengthen the Federal government's protective activities, we must also do all we can to support and reinforce state and local governments in exercising their legal authorities to protect their coastal environment and resources. We can learn much from the initiative taken by the Virginia legislature, which recently passed the Chesapeake Bay Preservation Act. This new law encourages cooperation between the State government and counties, towns and cities in the Tidewater area of Virginia in an effort to incorporate general water quality protection measures into comprehensive zoning plans. The provision calls for States to provide both financial and technical assistance to local governmental entities.

The Chesapeake Bay Foundation's land conservancy program covering easements is yet another valuable adjunct to Federal regulatory efforts.

Certainly our most serious attention is drawn to what might be considered existing incentives rather than disincentives to growth and development in the coastal zone. In this regard, it has come to my attention that an Inter-agency Federal Task Force on Floodplain Management is preparing a report that will

cover such issues as land conservancy, greenways and river corridor programs, floodplain controls in wetlands, and tax code adjustments. I look forward to examining this report when it becomes available.

In closing, let me summarize a few points for you regarding the efforts to reverse the degradation our coastal resources have suffered. First, it is going to take a concerted action on the part of the Federal government, States, local governments, and citizens.

Second, the CWA and the CZMA can be effective in mutually reinforcing and complementing each other. EPA can learn from the "bottom up" approaches that the State coastal zone management agencies have mastered over the years. While the States can take on the issue of land-use head first under the CZMA, EPA and the States also have an important CWA tool at their disposal: enforcement. And, attainment of water quality standards, in my opinion, should be the focus of enforcement. Our message is that water quality standards initially developed by the States can be used to reflect biological and physical as well as chemical parameters of water quality. And, because of our increased scientific understanding of the complexity and interdependence of coastal ecosystems, State coastal zone management programs need to shift their program orientation to better reflect water quality considerations and to make better use of the enforcement mechanisms of the CWA.

We must address the problems of the coastal zone now. Time is precious when you consider the loss of wetlands and other degradation to the coastal zone.

Thank you for the opportunity to appear before the Committee today. I would be pleased to answer any questions that the Subcommittee might have.

Statement of Oliver A. Houck, Professor of Law, Tulane University, before the House Committee on Merchant Marine and Fisheries, September 28, 1988, concerning coastal zone management and the protection of coastal resources.

Thank you for the invitation to testify today. My name is Oliver Houck, and I am currently a professor of law in Louisiana. For the past eighteen years I have studied, published, taught, litigated, fished, and simply loafed around coastal waters. I live now on the most biologically and commercially valuable coastline in America, hosting one-quarter of its remaining coastal wetlands, providing one-fifth of its seafood, wintering almost a third of its migratory waterfowl. This coast is disappearing at the astonishing rate of sixty square miles a year...literally before our eyes. As I observe the scene around us, the rates of loss are similar, only a little slower, for those coastal natural areas that remain.

For the story on Louisiana and the largely-unrecognized catastrophe in progress there, please see Houck, "Land Loss in Coastal Louisiana: "Causes, Consequences and Remedies," Tulane Law Review, October 1983. For a more recent study of the national scene, see Houck, "Ending the War: A Strategy to Save America's Coastal Zone," Maryland Law Review, Winter, 1988. These two studies only supplement the excellent record of this Committee, already overflowing with testimony and evidence that--whatever we may be doing for the Coast--it is not enough. We are losing the war.

I have not come today to throw stones at NOAA's coastal management program, at the Corps' implementation of Section 404, at EPA's belated national estuaries initiative, or at state coastal programs. I have come simply to observe that none of them, alone or combination, are up to the job. We need new tools. In this testimony, I will offer a few suggestions.

1. Acquisition of the remaining natural areas. We have relied too long on regulatory programs. At best, these programs slow the rate of destruction. At worst, as in Louisiana, they barely affect it at all.

One option is, of course, to adopt a yet stronger form of national coastal zoning, a CZMA with teeth similar to, say, EPA's Section 404(b)(1) guidelines. The difficulties with this approach are that (1) such teeth already exist in EPA's guidelines, (2) they are not strong enough, and (3) were more absolute prohibitions developed, they would have serious "takings" problems under the Constitution, (4) to say nothing about the politics of states' rights. This said, a 404(b)(1)-like requirement incorporated into the CZMA would be a good idea, for coastal areas (dunes, ridgelines, etc.) that are not subject to 404 jurisdiction. If the CZMA is to be amended, this requirement is the least that can be added with any hope of making a difference.

The missing supplement to regulation is acquisition, and it is time for an aggressive national acquisition program, in partnership with participating states. The

90-797 O - 88 - 4

logical funding base is real estate development, based on building permits, property transfer fees and like options. Real estate development is both eating the coast alive and benefiting from the natural areas that remain. It is the primary responsible party. The federal mechanism could be similar to the Pittman-Robertson/Dingle-Johnson Acts: federal monies made available to states that adopt tax programs exclusively dedicated to the acquisition of coastal lands. This combination of federal and state taxes assures a large enough pot, and the states' lead role in spending it. The legislation might encourage the acquisition of development easements, leaving residual uses with private owners and reducing the cost of the program.

A quick telephone survey of coastal states made in anticipation of this testimony shows that at least _____ states already have programs of coastal acquisition fueled by taxes on some form of real estate development. These states lead the way. Unfortunately, they are but a fraction of the participation required. What we need here is a larger federal carrot, if only to take some of the pressure off of the regulatory stick.

2. Pollution control. The seriousness and variety of coastal pollution is perhaps best documented in the 1987 OTA study, "Wastes in the Marine Environment." To meet it we have an EPA that has underregulated coastal dischargers as direct as industrial "pretreaters" and oil and gas platforms, is struggling mightily to bring municipal sources

into something approaching 50 percent compliance, and has no program to speak of for non-point pollution. The estuary program, whatever its good intentions, looks like a throw-back to the pre-Clean Water Act days: rounds of conferences to encourage the parties to clean themselves up. These conference may encourage those states that have good intentions to gum away at the problem. The teeth, however, are lacking.

I would like to be able to offer a "free-market" alternative to pollution control on the coast. I cannot think of one. I would like to offer an acquisition alternative, but acquisition is irrelevant to direct discharges, indirect discharges, municipal discharges and all the loadings from farms, fields and city streets. For half of the calendar year 1986, a "dead zone" of oxygen-deficient water extended over 2.4 million acres of the Louisiana coastal zone. Unfortunately, there is no remedy but to go after the sources. In this regard, two thoughts.

First, we will have to get serious about non-point pollution. The 1987 Water Quality Act's non-point provisions are not serious. At best, they are a throwback to the old, failed Section 208 program. They say, "states, go do something." That is not enough. The serious and necessary step with non-point pollution is cross compliance. Until the Congress is willing to condition farm and related subsidies on soil conservation and non-polluting practices,

fertilizers, pesticides and the rest of the non-point menu will continue to produce dead zones, ad infinitum.

Second, the coastal states themselves need incentives to take the hard steps necessary to restore their estuaries, and to encourage polluters to become part of the solution. EPA assistance is, of course, helpful. It would be more effective, however, were there an EPA stick. A model here is the Clean Air Act, which imposes development controls and other sanctions on non-attainment areas. A program that designated non-attainment estuaries, (2) required "reasonable progress" towards bringing these waters into attainment, and (3) imposed curbs on federal assistance and on private development related to the non-attainment problem, would encourage progress both from coastal states and their contributing sources. A non-attainment program provides the incentive to face the pain.

For both non-point progress and overall estuary approaches, something has to happen if pollution is not controlled. These two suggestions offer sanctions that, while not perfect, are reasonably related to the problem and have proven effective in related fields.

3. Structural solutions. For some parts of the country, saving the coast will mean more than simply preventing its further development and pollution. Coastal Louisiana, for one, has been so badly engineered that, unless we re-engineer it, we will lose it. The only agency with the expertise for the job is, ironically, the one

largely responsible for botching it in the first place: the U. S. Army Corps of Engineers.

I will refrain from further attack on my by-now numerous friends and adversaries in the Corps. Instead, I will only say that, to save Louisiana and other coastal areas, the Corps is going to have to be made part of the solution. Unfortunately, the Corps faces a number of statutory and regulatory impediments that--in its mind, at least--prevent it from taking on obvious projects to enhance and restore environmental quality. The Water Resources Act of 1986 addressed several of these impediments, and remedied them in small ways. The major constraints of the benefit/cost ratio remain. The Corps' restoration offense (marsh creation, etc.) languishes--much as its non-structural program for flood control--as a stepchild to its major works of construction. It is time that the Congress obtain an accounting from the Corps on its perceived obstacles, and move to redress them with legislation that, inter alia, directs the Corps to place primary emphasis on the restoration of coastal areas.

I hope that these thoughts are of assistance to you. Each is a distillation of my experiences with EPA, Corps, NOAA and other programs. From that experience I can only add that, unless we take serious and major steps, my children's children are unlikely to know of the coastal zone. We are dealing with an endangered species. California's coastal wetlands are already gone. New York

has saved a few museums. Florida's Atlantic seashore is hidden behind 300 miles of buildings. These recommendations to save the coastal zone may appear large. Its loss will be larger.

Statement of

Mr. James F. Ross, Director
Oregon Department of Land Conservation and Development

to the

Subcommittee on Fisheries and Wildlife
Conservation and the Environment

Committee on Merchant Marine and Fisheries

U.S. House of Representatives

September 28, 1988

My name is James F. Ross. I am the Director of the Oregon Department of Land Conservation and Development (DLCD). DLCD is both the state's land use planning coordination agency and lead agency for coastal zone management.

Thank you for the invitation to testify today. The focus of my comments will be on the need to integrate federal regulatory programs for coastal resources with coastal zone management. In this respect, I suggest that CZMA is an unfinished program. CZMA has encouraged states to make long-term decisions about coastal protection and development. Unfortunately, state efforts are frustrated by a combination of federal laws that are applied incrementally, on a case-by-case, project-by-project basis that seldom give recognition or weight to decisions made by states in their coastal zone management programs.

Several federal laws or regulations, including those which implement Section 404 of the Clean Water Act, the Fish and Wildlife Coordination Act and the Endangered Species Act, need to be modified so that federal agencies exercise their considerable authority in a comprehensive planning mode as well as through review of specific projects.

The strength and heart of CZMA is that it encourages states to take a long-term view of their coastal zones and their coastal resources. It has encouraged states to consider the long-term effects of continued development on fragile resources. It has encouraged states to make decisions about which areas are most appropriate for development and which are not. And states have responded. Coastal states have knit together their various

regulatory programs for most of the nation's coastline. Most have adopted some form of planning to make decisions about what areas will be conserved and what areas will be developed.

Unfortunately, state efforts to make long-term decisions designating areas for development are hampered by the inability or unwillingness of federal agencies to commit to development decisions in advance.

Federal regulatory agencies are often unable to sign off on plans because of federal laws and regulations requiring environmental review solely through case-by-case, project-by-project review procedures. These federal programs do not provide authority for long-term planning and commitments by federal agencies on designating areas for development.

Even where there is authority for planning or commitment, there is often a bias against planning. This occurs for several reasons:

First, federal environmental laws are obviously oriented toward environmental protection rather than toward promoting sound coastal development. Consequently, most agencies perceive long-term planning or commitment to development as outside the scope of their programs.

Second, the present orientation to incremental review, through its focus on detail rather than an ecosystem-wide view, requires a certain perspective of resource management that most agencies simply have not adapted to.

Third, there is simply a distrust of planning among federal resource agencies. Too often they seem to view planning as a giveaway of precious resources with no quid pro quo for resource protection. They seem to believe that by making decisions in advance, they are necessarily sacrificing resources that otherwise would be saved. For coastal zone management to work, this attitude has to change. Planning simply means making some decisions in advance; it does not mean lowering the standards for environmental protection.

This distrust of planning is based on the false premise that further resource losses in the coastal zone are entirely avoidable. They aren't. Further development in the coastal zone absolutely means that some resources will be lost. Our mission, the mission of the CZMA, is to minimize this damage. State programs do this in two ways: First, they identify and protect the critical resource areas, usually by prohibiting development or dramatically restricting the types of uses and alterations allowed. Second, state programs preserve resources by focusing development on the least valuable and most environmentally tolerant areas.

Several states, Oregon included, have made significant efforts to involve federal agencies in our coastal planning processes. We want to anticipate and accommodate their requirements in advance. We want the decisions we make to be meaningful.

The unfortunate truth is that federal agencies have responded in a very limited way. They have been supportive of planning which results in state and local protection of coastal resources. At the same time, though, they have reserved fundamental decisions about whether or not development should be allowed to the permit process. The result is that we have provided predictability about where development can't go, but we haven't provided much predictability about where it can.

Let me emphasize that I mean predictability in a relatively narrow sense. We aren't asking federal agencies to compromise their standards. We aren't asking that they guarantee permit issuance without additional project-specific review. What we are asking is that they make overall decisions on an areawide basis in advance: Is the proposed use needed? Are there appropriate alternative sites where there would be less impact? If they do nothing else, coastal zone management programs should at least answer these basic questions.

We are perfectly prepared to leave to the permit process those issues and questions that can be answered only when a specific project is proposed. Such inquiries can and should legitimately ask: Are impacts of the proposed development minimized? Is there adequate mitigation?

Let me also emphasize the importance of this level of predictability. Effective coastal management depends just as much on knowing where development can go as where it can not. Developers and local governments need to know where to make investments.

In Oregon, we require every city to adopt a long-range public facility plan, saying where they are going to make public investments in roads, sewers, and water systems. Sizing and designing these systems depends on knowing what types and intensities of land use will go where. We simply can't afford to wait five or ten years to find out that an area we have spent millions of dollars upon to make ready for development is "too valuable" a resource area to be developed.

Private developers need this level of predictability, too. A large measure of the success of Oregon's program has been our ability to guarantee developers that, if a site is zoned for industrial or commercial development, they can count on quick approvals. In Oregon, we don't have a state environmental impact process. We've answered the big questions up front through our land use plans. The result is a permit process that focuses on details instead of the big picture. And its a process that works. As a spokesman for our development community put it

recently: I've talked to developers in other states who would kill to get the kind of (short) turnaround times for permits that we get here in Oregon."[1]

But what happens if developers can't rely on approved coastal plans? Certainty and predictability are lost. The developer is entangled in a protracted process and a search for some more "appropriate" site. In short, we are back to the non-system that CZMA was designed to avoid.

That concludes my sermon. Now, let me cast these points in a manner which responds directly to the issues the committee is exploring today.

Possible Improvements in the CZMA

The Committee's letter on this issue is interestingly premised on the notion that there "is a continuing decline of coastal areas." While there are a number of areas where coastal zone quality has declined the committee statement may be a bit generalized. In many areas, including Oregon's coastal zone, we believe we have stopped the decline. Even so, the statement raises a very basic question about what CZM is designed to do.

I would suggest that the only way to halt the decline in our coastal areas is to place a moratorium on coastal development. The reason is simple: Further development in the coastal zone absolutely means some loss of coastal resource values because every area has some value. Siting new coastal development means choosing which resource values we should forego. In Oregon, we can choose from the most productive forest land in the world, prime agricultural lands, or a variety of important habitat areas. What's most (or least) valuable depends on who you ask. Property owners, developers, farmers, foresters, and resource agency people all have different answers about which values are most important.

My point is this: protecting coastal resources is a prime objective of CZMA, but it is not the Act's sole objective. CZMA is not the Coastal Zone Preservation Act. It is the Coastal Zone Management Act. Management includes preservation, but it also means making hard choices among competing uses and values. Such decisions aren't measured by simply asking whether there has been a decline in coastal resources.

The appropriate measure of CZMA is: have we protected the truly important coastal resources? In addition, have we provided for needed coastal development in a way which minimizes all resource

---

[1] Charles Hale, governmental Affairs Coordinator for the Portland Metropolitan Home Builders Association, at the Oregon Planning Institute, Eugene Oregon, October 1, 1987.

losses? The essence of coastal zone management is to strike a balance among all of the competing uses and values in a way which protects and preserves as much of the coastal zone as possible.

Now that I have redefined the question, let me attempt to answer it.

Because CZM is a combination of 29 different state and territorial coastal programs, it's necessary to look at each program to decide how effective the essentially procedural approach embodied in the CZMA has been. In the case of Oregon, it's been very effective because the state has established and implemented its own substantive standards. Other states have chosen other approaches which have been more or less effective.

One suggestion for improving CZMA is that it be amended to include "substantive" standards for measuring state coastal programs. Let me suggest three prerequisites for setting substantive standards in CZMA:

First, let's focus on issues where there are clear nationwide needs and equally clear inadequacies in state programs. The call for substantive standards should not be a wholesale rewrite of CZMA from a voluntary to a mandatory program. Rather, we should document the inadequacy of state programs to protect specific resources or manage particular types of development, and develop specific national standards for those resources or uses.

Second, any substantive standards should account for the diversity in state programs. Standards should not mandate a single-formula approach. CZMA has encouraged 33 different state laboratories to come up with different solutions. New federal policies shouldn't undo this aspect of the Act but should allow states to come up with demonstrably effective alternative approaches.

Third, adoption of new substantive standards in CZMA should be done only if those standards are fully meshed with existing federal regulatory programs. If they aren't, then the standards will only result in another layer of regulation.

In 1981, NOAA completed a special report to the President entitled "Federal Coastal Programs Review." That report includes an excellent analysis of the problems of federal agency coordination with state coastal programs. The report proposes "special area management plans", or SAMPs, as a technique for improving coordination among government agencies to improve coastal management and streamline the permit process. Special Area Management is basically the same concept I've elaborated on above; making basic planning decisions in advance, and focusing the permit process on just the details. The observations in this report are, seven years later, still on point.

CZMA encourages special area management. The Office of Ocean and Coastal Resources Management (OCRM) has encouraged it. Unfortunately that encouragement isn't enough to make it work. This is because the statutory changes that need to be made are not to the CZMA. Rather, changes are needed in the other federal laws which regulate coastal resources. As I mentioned earlier, these other laws are: Section 404 of the Clean Water Act, the Fish and Wildlife Coordination Act and the Endangered Species Act.

The reason for changing these programs is not to weaken or reduce their standards. Rather it is simply to reorient their application from regulation alone to a two-step system of planning and regulation. Each of these laws should provide for the administering agency to sign off on land-use designations made in coastal management plans. Such an approval process could reserve decisions about impact minimization and mitigation to a regulatory review.

The Interplay between CZMA, Water Quality Programs and Habitat Protection

Oregon's program, like several others, is grounded in the principle of coordinated comprehensive planning. We have at least attempted to integrate the range of public policy considerations into our planning program. This is clearly true for habitat protection and at least indirectly true for water quality considerations.

Comprehensive plans are required to protect significant fish and wildlife habitat areas. Identification and protection of "significant" habitats is made in coordination with our state Department of Fish and Wildlife and the federal fish and wildlife management agencies. (In a moment, I will elaborate on the results of that process.)

Water quality considerations are built into plans on several levels:

First, by allocating land to different types of use, plans place some overall limits on water quality impacts. This can result in restricting or at least separating uses which are incompatible on a water quality basis. For example, estuary plans have restricted in-water log storage to protect areas used for oyster culture.

Second, plans set limits on activities which can harm water quality. For example, local zoning typically requires retention and protection of riparian vegetation which buffers streams, rivers and wetlands from potentially harmful activities. We also set specific requirements for the siting of sewer outfalls in estuaries and the ocean. We prohibit outfalls in natural estuaries and natural management units within all estuaries.

Finally, plans can set the stage for water quality management by identifying issues for regulatory agencies and providing the planning framework for regulation. For example, in Tillamook County, Oregon, Exclusive Farm Use zoning, adopted as part of the coastal management program, protects farmlands from development. Preserving the land base encourages Tillamook dairy farmers to make long-term investments in their operations, including investments in new waste management techniques that have improved estuarine water quality.

My comments about planning in general and special area management planning are especially applicable to estuary planning. Management of estuaries and coastal wetlands is at the heart of the regulation-versus-planning problem. Let me say that I am pleased that the National Estuaries Program is underway. At the same time I feel I should welcome EPA to an effort we in Oregon have been working at for fifteen years.

Oregon's Coastal Management Program has resulted in adoption of detailed estuary management plans for all of the state's 17 estuaries.

Estuary planning is controlled by Statewide Planning Goal 16 (Estuarine Resources). Under the terms of the Goal, the state has classified each estuary as "development", "conservation" or "natural". This overall classification limits the intensity of development allowed within each estuary. Basically, it limits navigational improvements and attendant development, including dredging and navigation channels to those estuaries that now have such improvements.

Each estuary is divided into management units, much like upland zones. The goal specifies three types of management units: natural, conservation, and development. Designation depends on the resource values present. Major tracts of tideflats and marshes must be protected as natural management units. Less valuable areas, typically shallow subtidal areas, are placed in conservation management units, where a few minor alterations are allowed. Areas that are currently developed, including existing dredged channels and port facilities, are in development management units. This classification allows for dredging and filling, provided certain tests are met, including impact minimization and mitigation for intertidal alterations.

Plans must designate management units according to the process in Goal 16. Variances are allowed through what is called a goal exception. This typically occurs when a port or city proposes an area for development that would otherwise qualify as a natural or conservation management unit. The tests are tough. An applicant must demonstrate:

1. There are substantial reasons for allowing the use.
2. There are no alternative sites which cannot reasonably accommodate the use;

3. There are no significant long-term environmental, economic, social and energy consequences.
4. The proposed uses are compatible with other adjacent uses.

LCDC has adopted an administrative rule which sets forth reasons that can be used to justify exceptions. The plan must include an economic analysis which shows that there is a reasonable probability that the proposed use will locate in the planning area during the planning period. The analysis must be based on the following factors:

a. Factors of Goal 9 [Economy of the State] or, for recreational uses, the factors of Goal 8 [Recreational Needs];
b. The generally predicted level of market demand for the proposed use;
c. The siting and operational requirements of the proposed use including land needs, and as applicable, moorage, water frontage, draft or similar requirements; and,
d. Whether the site and surrounding area are able to provide for the siting and operational requirements of the proposed use;
e. The economic analysis must be based on the Goal 9 element of the county comprehensive plan and consider and respond to all economic information available or supplied to the jurisdiction. The scope of this analysis will depend on the type of use proposed, the regional extent of the market and the ability of other areas to provide for the proposed use.

Estuary plans are also fully integrated with planning and zoning for the surrounding shorelands and uplands. Plans anticipate and provide for needs for water-dependent development, sites for disposal of dredged material, and sites for mitigation of estuarine dredging and filling.

Let me suggest that the process has worked very well. Consider the results:

-93.6% of Oregon's estuarine area is in natural or conservation management units. Most of the remaining 6.4% in development management units are existing dredged navigation channels.

-Of the 19,500 acres of tidal marsh in the Oregon, only 113.2 acres, or 0.6%, are designated for development. Almost 18,000 acres, or 92%, are in the protective "natural" designation, which allows little or no alteration.

-Of the 65,000 acres of intertidal area (including tidal marshes) a total of 1,078 acres--only 1.6% of the total--are in the development category.

We support the National Estuaries Program but with the fervent hope that it does not reinvent the wheel of estuary planning. We would prefer to see the program shaped as an EPA-OCRM partnership which ties together all aspects of estuary planning, including EPA's water quality and 404 wetlands programs as well as the Corps of Engineers and federal fish and wildlife habitat protection programs. Additional funding is needed to make this happen for all estuaries, not just those like Chesapeake Bay, that have obvious problems. Also, EPA's estuary planning efforts must consciously incorporate the Section 404 considerations at a planning level to provide increased predictability in the permit process.

In states (such as Oregon) with detailed estuary plans the National Estuaries Program should build on the existing foundation rather than create a new and separate planning structure targeted just at water quality issues. This can be done by adding a "water quality" element to the estuary plans that addresses the range of water quality problems and includes specific remedial measures.

In Oregon, estuary plans now address water quality issues in a general way. We would use the NEP to further refine and implement the basic use decisions already made through the coastal zone management program. We would add specific water quality requirements for specific uses and activities, such as standards for nonpoint sources of water pollution.

The process of knitting NEP together with CZM should also adopt a single approach to the federal consistency issue. Using the CZM consistency procedures would eliminate any unnecessary duplication and confusion. It would also build on a process which has been operating successfully for the last 15 years.

By tying in EPA's 404 authority and the other federal programs, we could achieve the predictability about 'what uses go where' that is the heart of coastal zone management in Oregon.

Effective Management of Coastal Growth

While it may begin to sound like I think Oregon has all the answers, let me assure you we don't. You just seem to be asking us the right questions.

Growth management is one the hallmarks of Oregon's well-known land use planning program. It is also an element of the state's coastal zone management program. Several of our Statewide Planning Goals set requirements for planning and managing urban development.

The key element of the state's program is the requirement that every city establish an urban growth boundary, or UGB. The UGB divides urban land from rural land. Land within the boundary is designated for residential, industrial, and commercial

development. Land outside the boundary must remain in rural use. Basically, lands suitable for farming and forestry must be zoned for those uses. Protection is achieved through large lot zoning (typically 40 acre minimums) which restricts dwellings, bans subdivisions, and prohibits most forms of urban development. Rural lands which are developed are planned and zoned to allow a continuation of rural levels of use and development.

Urban growth boundaries are based on long-range forecasts of population growth and need for jobs and housing. Specific land needs for housing and industrial and commercial development must be identified, and enough buildable land must be planned and zoned to meet these needs.

Elements of the plan must provide for specific needs. For example, the housing element must identify housing needs based on housing costs and the income levels of the projected population. If multifamily housing is needed, land for multifamily housing must be planned and zoned.

Plans are also implemented through capital improvement programs which forecast needs for urban facilities and services--sewers, water systems, roads, schools, fire protection, etc. The plans must include long-range and short-range elements. The short-range element must list specific projects and methods of financing the proposed improvements.

Oregon's program manages growth by properly planning for anticipated growth. This, in combination with measures which restrict development on rural lands, results in more effective long-term protection for coastal resources.

The Coastal Zone Management Act could easily be strengthened to further encourage planning for broader protection of undeveloped rural areas and proper planning for urban development. For example, states might be required to identify urban and rural areas for the purpose of targeting state and federal spending on infrastructure improvements. Federal spending on highways, sewer and water lines creates tremendous subsidies to urbanization and suburbanization in the coastal zone. By identifying urban and rural areas in coastal zone plans, states and federal agencies could target funding to urban areas and reduce incentives for inappropriate development in rural areas.

Thank you for the opportunity to present these comments to the you. Coastal zone management has been a successful experiment, so far. It is time to fine tune the program to address in a more comprehensive and predictable way the current and future use of our coastal resources. I am pleased and encouraged by the your efforts to continue to refine and reshape the program to reflect our experience with it.

Testimony of the New York State Department of Environmental Conservation before the House Subcommittee on Fisheries and Wildlife Conservation and the Environment, 10 AM, Wednesday, September 28, 1988

Mr. Chairman and members of the subcommittee, good morning. My name is Langdon Marsh and I am the Executive Deputy Commissioner of the New York State Department of Environmental Conservation (NYS DEC). I appreciate having the opportunity to testify today on the important issue of improving the management of coastal resources.

The Department of Environmental Conservation was established in 1970, just before the enactment of the federal Coastal Zone Management Act. At that time, State resource management and environmental protection programs were brought together in DEC in order to ensure their effective integration on a statewide basis. The Department administers the State's programs for water, air, solid waste and hazardous waste, forest resources, fish and wildlife and marine resources. In addition, the Commissioner of Environmental Conservation has wide-ranging authority to address emerging environmental problems in cooperation with other levels of government and private institutions.

Since 1970, many new responsibilities have been assigned to the DEC, including those for administering the State Environmental Quality Review Act, which is our "mini-NEPA" law for State and local actions, the Tidal and Freshwater Wetlands laws, the Coastal Erosion Hazard Areas Management Act, the Wild,

Scenic and Recreational Rivers Act, the Mined Land Reclamation Act and others. Many of our programs involve direct regulation of land and water use as well as planning, research and coordination with local governments. We are responsible for overseeing development of certain resources, such as oil and gas and forest resources. We are the lead agency for Outer Continental Shelf oil and gas leasing, the Estuarine Sanctuary Program and the National Estuary Program.

New York State has invested billions of dollars in resource management and environmental protection programs that are carried out in accordance with consistent statewide standards. Currently, we are implementing a $1.4 b. Environmental Quality Bond Act for land acquisition and hazardous waste clean up. Coastal resources protection is given priority in the bond act land acquisition program.

We administer these programs through the various program divisions in our central office in Albany. They develop and evaluate programs and provide overall guidance for their implementation. The programs are delivered at the local level through a statewide system of nine regional offices, each of which is administered by a regional director. In total, we have a staff of about 3,000 professionals in our central office in Albany and in our regional offices. Most of our programs and all of our regional offices are involved in the State's Coastal Management Program. The state's coastal area includes the marine coast of Long Island, New York City and Westchester, the Great Lakes, the St. Lawrence River and the Hudson River Valley south of Troy.

In New York, the Department of State is the designated lead agency for administration of the State's federally-approved Coastal Management Program. Since 1974 the Department of Environmental Conservation has received substantial federal funding as the major subcontractor to the Department of State for the development and implementation of New York's Coastal Management Program. Under Section 305 of the Coastal Zone Management Act (CZMA), most of the federal funds were used to accelerate work already in progress, the completion of which was essential for development of the State program. The Department of Environmental Conservation also inventoried coastal erosion hazard areas along the great Lakes and the marine coast and prepared legislation, regulations and maps to implement a management program for these areas. Since approval of the State Coastal Management Program in 1983, we have received Section 306 CZMA funds to aid administration and enforcement of our Tidal and Freshwater Wetlands laws in Long Island and New York City, review of local waterfront revitalization plans, completion of an inventory of significant habitats in the marine coast and the Great Lakes and administration of the Coastal Erosion Hazard Area Management program. Currently, however, federal CZMA funds support four positions in several program areas of the Department of Environmental Conservation. We understand that this is the last year in which such funds will be made available to us, in part because of increased federal matching requirements and the effects of salary increases while the federal appropriations have not increased proportionately.

Although the CZMA undoubtedly has benefited New York and has helped in our efforts to protect and better manage coastal resources, there is no doubt in my mind that we are losing the battle against pollution of coastal resources. To date, at least, the CZMA has not made a major difference.

Our biggest problem is that the funding levels have been inadequate to meet the needs for many of these programs. For example, a recent assessment of the Tidal Wetlands program, which was supported with CZMA funds, resulted in identification of a need for 21 additional staff positions. This number does not include attorneys, law enforcement officers and other supporting personnel. At present, the CZMA funds support only one position in the DEC and, as stated, this funding is scheduled to end next year.

Second, apart from the fact that federal CZMA funding has been insufficient, that funding has not been reliable from one year to the next or over the long term. In order to run any resource management program effectively, there must be a stable and continuing source of funding. Further, as mentioned, the level of funding has not kept pace with inflation nor has it begun to address the need for implementing approved State programs. Needs for funding of priority areas, such as public access, are substantial.

A third problem concerns the administration of the program by the federal Office of Coastal Resources Management. On several occasions, this agency has been unresponsive to State priorities and program interests. In some instances this has amounted to contradiction of State priorities and interference in the

administration of DEC programs. We hope that the recent leadership changes will restore the appropriate Federal-State balance.

Fourth, we believe that some significant improvements should be made in the CZMA to require state programs to more effectively link controls for land use decisions with resource protection. In part this can be accomplished by requiring the states to establish performance standards and criteria for development to be implemented in cooperation with coastal municipalities. In part it can be accomplished by tightening state water quality standards and relating them more directly to land use. Creating ties between the Clean Water Act and the CZMA is another approach. Establishment of minimum flow requirements that reflect realistic limits to water withdrawals for difference uses is a tool that should be used more widely, too.

In order not to drive states out of the program by establishing a lot of new requirements, a delicate balance of incentives and mandates should be considered. It also should be kept in mind that controls are administered primarily by local governments. We have 255 local governments in our coastal area.

Land acquisition also is an important tool for protecting coastal resources. If we are to obtain federal assistance in this area, revitalization of the Land and Water Conservation Fund, along the lines of the Udall-Chaffee bill, is essential. A linkage should be established to ensure that priority is given to protection of coastal resources by use of these funds, in

combination with state and local monies, just as we have done in our State bond act regulations.

Fifth, we have numerous recommendations about individual resource protection issues and program areas. Some of these are:

--Greater attention should be given to protection of fish and wildlife and associated habitat resources.

--Federal funding should be provided for public access, including boat access, access to shoreline and visual access.

--The Coastal Barrier Resources Act should be expanded to the Great Lakes.

--The Corps of Engineers navigational dredging projects, in budgeting and design phases, should be required by Congress to meet all applicable state environmental laws. It is not acceptable that the Corps of Engineers' own preferred alternative should be considered the "federal standard" when it doesn't meet state laws.

--The National Marine Fisheries Service should be adequately funded so that it can fulfill its responsibilities.

We appreciate the considerable interest of this Subcommittee in protecting coastal resources, Mr. Chairman, and look forward to working with you towards this objective in the months ahead, as we approach reauthorization of the CZMA.

STATEMENT OF
JUDGE SOLOMON LISS, CHAIRMAN
CHESAPEAKE BAY CRITICAL AREA COMMISSION

to the

Subcommittee on Fisheries and
Wildlife Conservation and the Environment

Committee on Merchant Marine and Fisheries
U S House of Representatives

September 28, 1988

Good morning. My name is Solomon Liss, and I am Chairman of a 26-member Commission known as the Chesapeake Bay Critical Area Commission in Annapolis, Maryland. The Critical Area Commission was created by Law in the Maryland General Assembly in 1984. It is an independent agency of State government with the primary function of coordinating the actions of local governments and State agencies on land use and natural resource management issues along the shoreline of the Maryland portion of the Chesapeake Bay and its tidal tributaries. The Commission is comprised of individuals representing various interests throughout the Bay area, including local governments, environmental groups, the farm and timber communities, development interests, and the Secretaries of six Maryland resource management agencies.

The Commission came into being because it was recognized that in spite of the existence of Federal and State point source and non-point source pollution laws and programs, and in spite of existing Federal and State resource restoration and enhancement laws and programs, the declining health of the Chesapeake Bay would not be able to be reversed if the intensity of human activity throughout the Chesapeake Basin continued to increase. In fact, the five-year Congressionally-funded and endorsed study of the Chesapeake Bay by the US Environmental Protection Agency revealed that human population growth, urban development, and changing agricultural practices have increased the nutrients and toxic substances entering the Bay. These same activities have reduced the extent and productivity of certain aquatic and terrestrial habitats.

The Chesapeake Bay Critical Area Commission and its management program is a bit unique because even though its focus is only on the tidal waters of the Bay, on the land under the tidal waters, and on upland within 1,000 feet of the tidal waters, it represents the first time in Maryland's history that a State-mandated/local government land planning and enforcement effort was viewed as essential for the well-being of the Bay's environment.

In 1978, Maryland's Coastal Zone Management Program was approved by the US Department of Commerce. Under the Program, and in consort with the Federal Coastal Zone Management Act of 1972, Maryland recognized the need to establish a comprehensive coordinated approach for the protection, preservation and orderly development of the State's coastal resources. The coordinated approach was to be a networked one using existing laws and regulatory programs, various Executive Orders, Memoranda of Agreement and procedures. While the Program was successful in coordinating coastal activities and in encouraging local governments to identify and manage their coastal resources, it was found that the Program could not redirect priorities or create a framework around which consistent decisions could be made. This was because it was built upon existing laws. To illustrate, even under the Coastal Zone Program, over the past decade Maryland has experienced the following:

1. farm and forest land (prime habitat areas) being used up at an accelerated rate of over 9,500 acres per year since 1970.

2. land being converted faster than population growth, meaning that the amount of land being used per capita is increasing.

3. low density residential sprawl being the major cause of loss of farm and forest land. In fact, residential uses account for 90% of the increase in urban and suburban land.

   In sum, we are not building in areas planned for growth, but rather, are intruding in areas originally designated for rural, agricultural, conservation, preservation, or similar purposes.

This is not meant to indicate that the Federal Coastal Zone Mangement Act has been a failure. What it does indicate is that something more is needed to strengthen and to build upon the existing Law.

MARYLAND'S APPROACH TO COASTAL GROWTH

Under the Critical Area Law, the Commission was required to develop criteria for local jurisdictions to use in creating local Critical Area Protection Programs. These criteria were promulgated in December 1985, and approved by the General Assembly in 1986. They were based on three goals specified in the Law:

1) Manage adverse impacts on water quality that result from pollutants discharged from structures or conveyances that have runoff from surrounding land;

2) Conserve fish, wildlife, and plant habitat;

3) Establish land use policies for development in the Chesapeake Bay Critical Area that accommodate growth and also address the fact that even if pollution is controlled, the number, movement, and activities of persons in that area can create adverse impacts.

The Commission's criteria vary in their specificity. Some require design and performance standards to be included in local regulations. Others require local jurisdictions to develop strategies to address well-documented problems such as the quality of urban stormwater discharges. Through collaborative planning, which is specified in the Law, jurisdictions are to use these guidelines in developing or modifying local regulatory programs, such as zoning ordinances, a general development plan, or subdivision regulations.

The Law includes a schedule for local Program development, for Program approval by the Commission, and for implementation by local jurisdictions. All jurisdictions must implement Programs by June 1988.

There is also a management strategy that accompanies the Commission effort. It has three major themes: land use management, conservation of ecosystem function and diversity, and state/local government coordination. Each local government must translate this strategy into a local management program for the Critical Area within its political boundary. The first step is requiring inventories or maps of the following resources: agricultural land, non-tidal wetlands, tidal wetlands, forest resources, sand and gravel resources, tributary streams, specific plant and wildlife habitats, steep slopes, and soils with development constraints.

Most of these resources along the Chesapeake Bay shoreline in Maryland were previously mapped by government agencies and private organizations through the use of Maryland Coastal Zone Management grants to the counties.

The second step is for local jurisdictions to classify the land in the Critical Area into one of three categories: intensely developed areas, limited development areas, and resource conservation areas. Generally, intensely developed areas are ubanized areas, limited development areas range from suburban to rural residential areas, and resource conservation areas include forests, agricultural land, and wetlands.

These land use categories are significant to the local Program in the following ways:

Each category has different management requirements, allowing the classification process to define the spatial location of different future management practices. For example, in intensely developed areas, forest management objectives promote urban forestry programs emphasizing street tree management, tree planting in community parks, and private landscaping efforts. In resource conservation areas, local Programs preserve and enhance forest resources by requiring management plans prior to harvesting, requiring compensatory reforestation after clearing, and providing incentives for reforestation.

The categories that determine potential locations of particular water-dependent facilities, such as ports and marinas, which are prohibited in resource conservation areas.

The areal extent of resource conservation areas within a jurisdiction determine new growth areas (intensely developed areas and limited development areas) that can be planned within existing resource conservation areas. The amount is determined by a formula in the criteria. The formula limits the ability to expand or create more shoreline development in those jurisdictions with extensively developed shorelines than in those with rural shorelines. The formula also encourages the redevelopment and revitilization of existing communities rather than allow intense development to sprawl along the shoreline.

By determining the location and extent of natural resources and human activities, local Programs can maximize the benefits from both urban and rural uses of the Bay's shores. Once growth is used up, no further development can take place along the shoreline.

THE INTERPLAY BETWEEN CZMA PROGRAMS, WATER QUALITY PROGRAMS, HABITAT PROTECTION - MARYLAND'S EXPERIENCE

Maryland has many programs for managing water quality. These programs address both point and non-point source pollution. Non-point source pollutants are difficult to manage because their sources are numerous and difficult to identify. The kinds and amounts of non-point source pollutants generated from a site relate to land use and management practices--the types of activities the Commission is legally required to address. Consequently, the Commission's criteria for water quality management include both preventative and corrective measures for reducing the impacts on non-point source pollutants. The Commission's strategy includes directives to be applied throughout the Critical Area and particular guidelines for land in each land use classification (intensely developed areas, limited development areas, and resource conservation areas).

To manage water quality, the Commission has identified three objectives that apply throughout the Critical Area. The first objective is reinforcement and expansion of State programs for sediment control and stormwater management. These programs were designed to be delegated to local jurisdictions if certain standards are maintained.

The second objective is to conserve or enhance the forest resources within the Critical Area for water quality benefits. Because forests generate lower rates of sediment and nutrients in runoff than other land uses, their widespread conversion in urban areas has contributed to the non-point source pollution problem. Forests can also intercept nutrients and sediment originating on adjacent land. Consequently, if properly located, new forest strips can be living filters that reduce the impacts of upland disturbances on water resources. Because conservation of the land and water interface is so vital in water quality management, the Commission is requiring watercourses, shorelines, and non-tidal wetlands to be buffered by strips of natural plant communities throughout the Critical Area. Existing development within these buffers can remain, but local jurisdictions must undertake compensatory activities.

The third area-wide objective is to require that Soil Conservaiton and Water Quality Management Plans be implemented on all farms. These plans prescribe best management practices for soil, water, fertilizer, pesticides, crop residues, and animal husbandry to reduce offsite impacts.

Accomplishment of these three objectives will minimize the non-point source pollution generated in the Critical Area.

Additional criteria for managing water quality impacts are good examples of how classifying land into management units directs the local jurisdiction in solving relevant problems. For example, in intensely developed areas, the sources of pollutants are different than those in rural areas. The Commission's objective in intensely developed areas is to correct problems and restore natural systems to the extent possible. Consequently, the criteria require that local jurisdictions address urban non-point sources of pollution by establishing urban forestry programs and by landscaping. They are also required to reduce impervious areas and to apply necessary technological solutions. In particular, redevelopment projects in these areas are required to improve incrementally, the quality of surface runoff.

In limited development areas, the goal is to protect those parts of natural communities that contribute to good water quality while allowing limited development to occur. Local Programs will accomplish this by minimizing the area disturbed by development activities; limiting the impervious area to 15 percent of the site; reducing road standards if safety is unaffected; prohibiting development on steep slopes; limiting forest clearing; and requiring replanting of all cleared forests.

The causes of pollution in resource conservation areas are generally different than in intensely developed areas and limited development areas. Water quality in these areas will be conserved and improved by maintaining or increasing the acreage of forest cover and by requiring all farms to implement a Soil Conservation and Water Quality Management Plan. The low-density development allowed in resource conservation areas must adhere to the standards prescribed in limited development areas.

By classifying the Critical Area into management classes, the uniform regional criteria for water quality management can be relevant to each of the local jurisdictions around the Bay.

The Critical Area Law directed the Commission to establish program development criteria to "conserve fish, plant, and wildlife habitat". This directive is fairly unique among wildlife laws because it formally recognizes that habitat conservation is essential to species conservation. The task of the Commission was to select those fish, wildlife, and plant habitats that should be considered for protection by the Critical Area Law.

The Commission identified four classes of species in need of protection. The first class includes those species directly dependent upon the aquatic habitats in the Chesapeake Bay and its tributaries.

The second class comprises species that are highly susceptible to isolated disturbances because their habitats are rare, their occurrences are rare, or, as in the case of colonial waterbirds, they congregate to breed in relatively few places, at which time regional breeding populations become vulnerable to disturbance. Loss of these habitats can mean a significant loss in regional biological diversity within the Chesapeake region.

The third class includes species that are seasonally absent from the Chesapeake Bay region. For example, certain waterfowl winter on the Chesapeake; neotropical migratory birds breed there. The criteria require persons who make land use decisions to consider the seasonal dependence of these species upon local habitats.

The fourth class is composed of species threatened when their habitats are fragmented and isolated by land use changes. Historically, urban development and agricultural land uses have replaced large forested areas in the Chesapeake region. If past and projected land use trends continue, large forested areas will become increasingly scarce in the coastal areas of Maryland. These trends have contributed to insidious declines in populations of birds that require large forested tracts for successful reproduction. Research in other locations suggests that habitat fragmentation affects plants and other wildlife.

Each of these four habitat types is essential to the conservation of regional biological diveristy, but each is threatened by daily, cumulative land use decisions on the part of local governments and citizens along Bay shorelines.

Traditional management approaches may not ensure the conservation of regional biological diversity. For instance, regional impacts on birds dwelling in the forest interior can be minimized by the sensitive design of sites during development, scheduling forest cuts in management plans, conservation of wildlife corridors between large forested tracts, and establishment of land use policies that conserve large forest tracts.

But the conservation of large tracts of continuous forest for regional diversity contrasts with the current practice of promoting local habitat diversity in forest management plans. Consequently, regional habitat conservation objectives may need to override traditional site objectives because the Commission's criteria require local jurisdictions to protect these species' habitats when they approve local land use and management plans.

GROWTH MANAGEMENT - STRENGTHENING THE COASTAL ZONE MANAGEMENT ACT

It seems that given Maryland's short experience with growth management, that it might be premature to offer suggestions to strengthen the Act, however, there are several to be made:

1. The Act needs to become more land-use growth-management oriented. While land-use and land resources are part of the exiting Law, it seems as if most of our coastal states emphasized the water resources side. Little effort, except for a few states, has been made to go beyond mere stating of policies and objectives for land use in existing coastal programs.

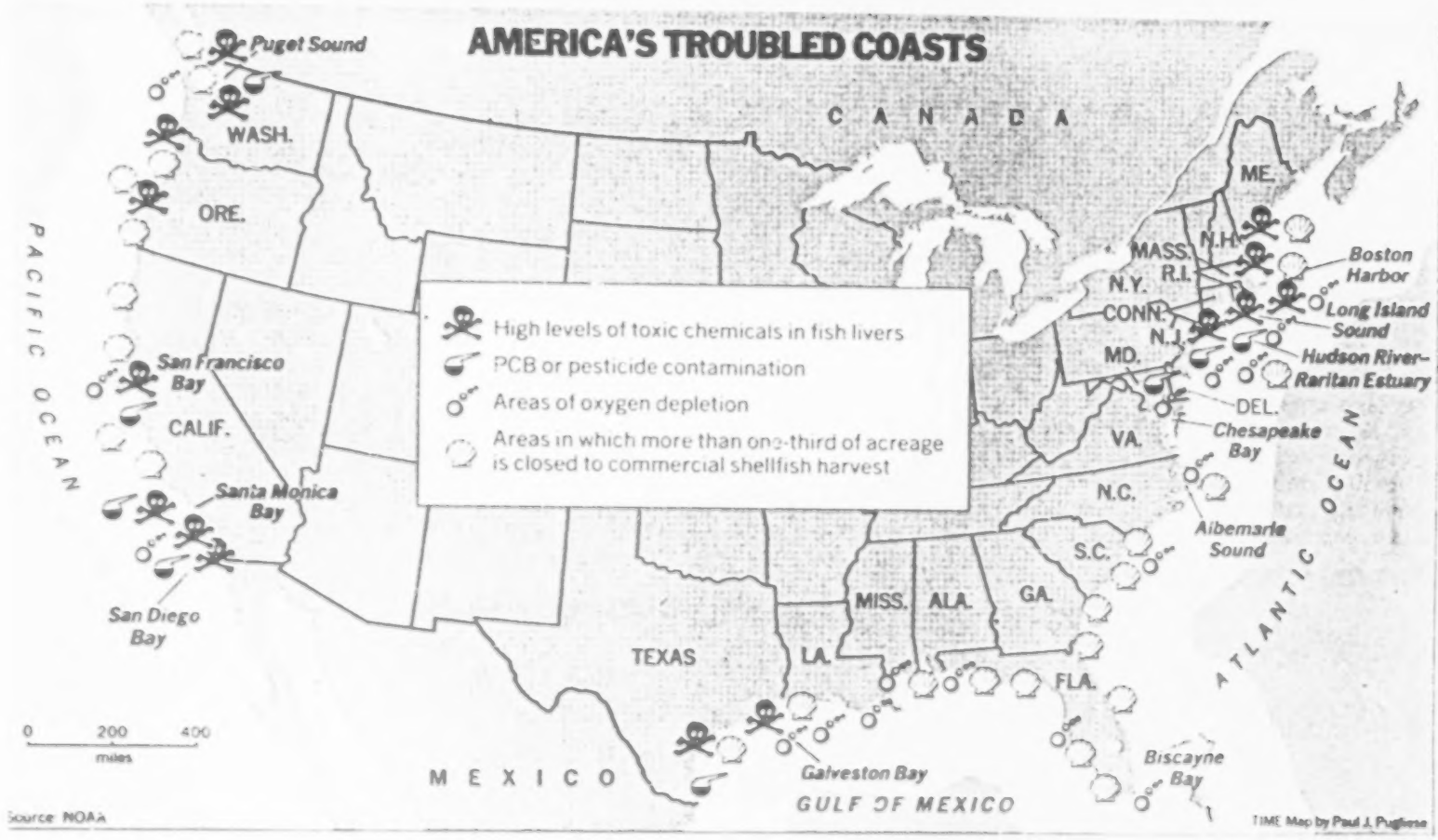
2. There should be a way to structure the Act so that it provides for land use, growth management goals and criteria that states and local governments would be directed to address in planning for and enforcing land-use decisions. A suggestion would be that the Law contain specific resources to be addressed, such as Heritage Areas, non-tidal wetlands, threatened and endangered species, specific plant and wildlife habitat, large forested areas, etc.

3. There should be an examination of Federal actions, policies, programs, and permit processes, to see how many of them actually do foster unmanaged growth, or development in areas where it is unwanted. In fact, this assessment should be the first step because changes of direction may be able to be built into a strengthened Federal Coastal Zone Management Act.

4. The revised Law should mandate a partnership between local, State, and Federal agencies. This is important because it is at the local level where land-use decisions have an effect on the wise management of our land. The existing Law does not mandate this partnership.

5. Under the Law, Federal, State, local, and private agencies should be directed to focus their acquisition and easement programs on resources that need protection, such as: Natural Heritage Areas, threatened and endangered species habitat, large tracts of forested land with plant and wildlife value, and valuable agricultural land, etc.

Natural resources management requires coordinated decision making for at least two reasons: first, non-point source pollutants and impacts on fish, wildlife, and plant habitats originate from many diffuse sources. Therefore, many private and public institutions must participate in comprehensive solutions. Second, resource management responsibility and expertise generally occur at the state level, while local jurisdicitons make land-use decisions that significantly affect those resources.


AMERICA'S TROUBLED COASTS
Puget Sound
WASH.
ORE.
CALIF.
San Francisco Bay
Santa Monica Bay
San Diego Bay
PACIFIC OCEAN
CANADA
ME.
MASS.
R.I.
N.H.
N.Y.
CONN.
N.J.
MD.
DEL.
VA.
N.C.
S.C.
GA.
FLA.
MISS.
ALA.
LA.
TEXAS
Boston Harbor
Long Island Sound
Hudson River–Raritan Estuary
Chesapeake Bay
Albemarle Sound
Galveston Bay
Biscayne Bay
ATLANTIC OCEAN
GULF OF MEXICO
MEXICO
High levels of toxic chemicals in fish livers
PCB or pesticide contamination
Areas of oxygen depletion
Areas in which more than one-third of acreage is closed to commercial shellfish harvest
0 200 400
miles
Source NOAA
TIME Map by Paul J. Pugliese

90-797 (112)